



1/48

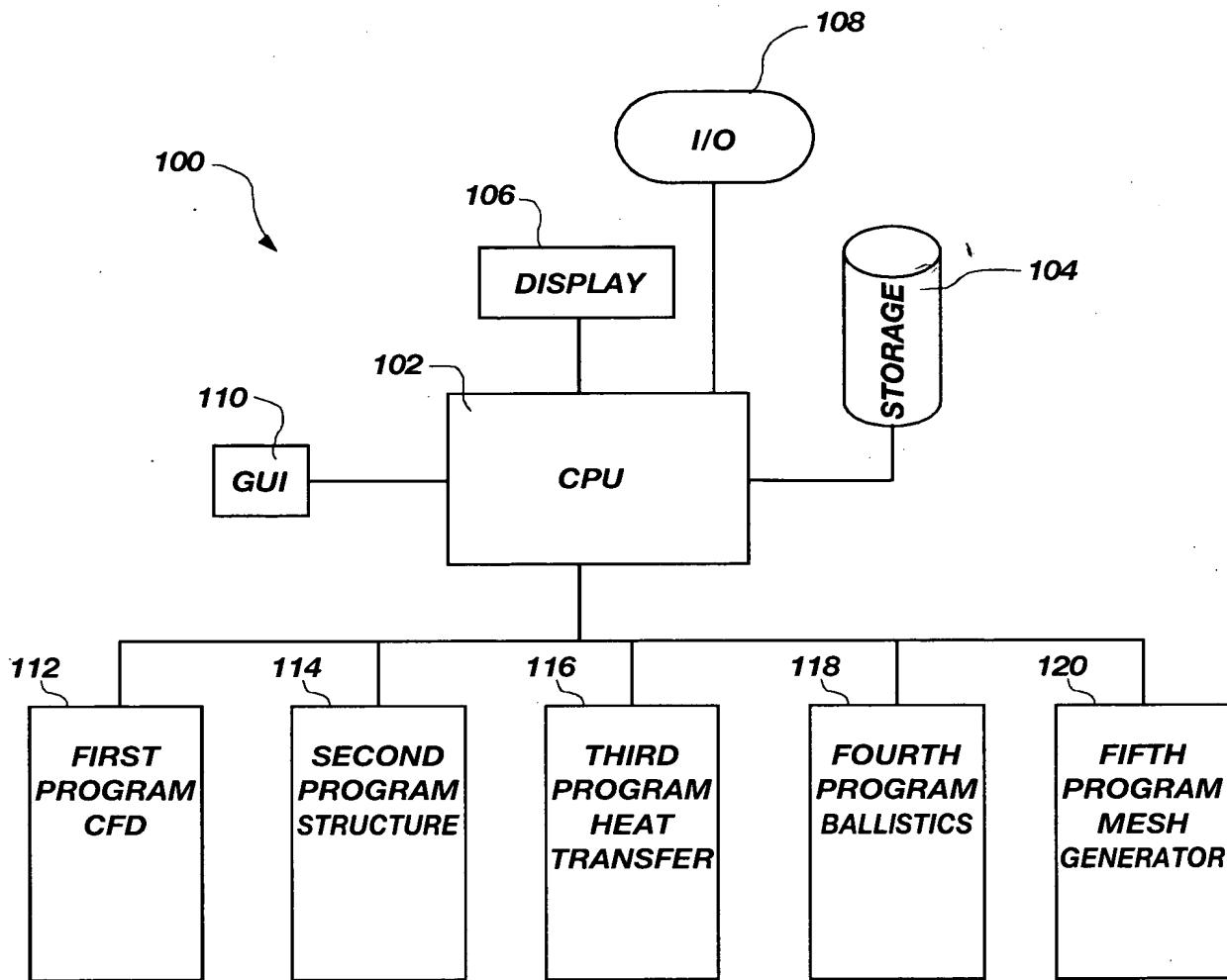


FIG. 1

+

2/48

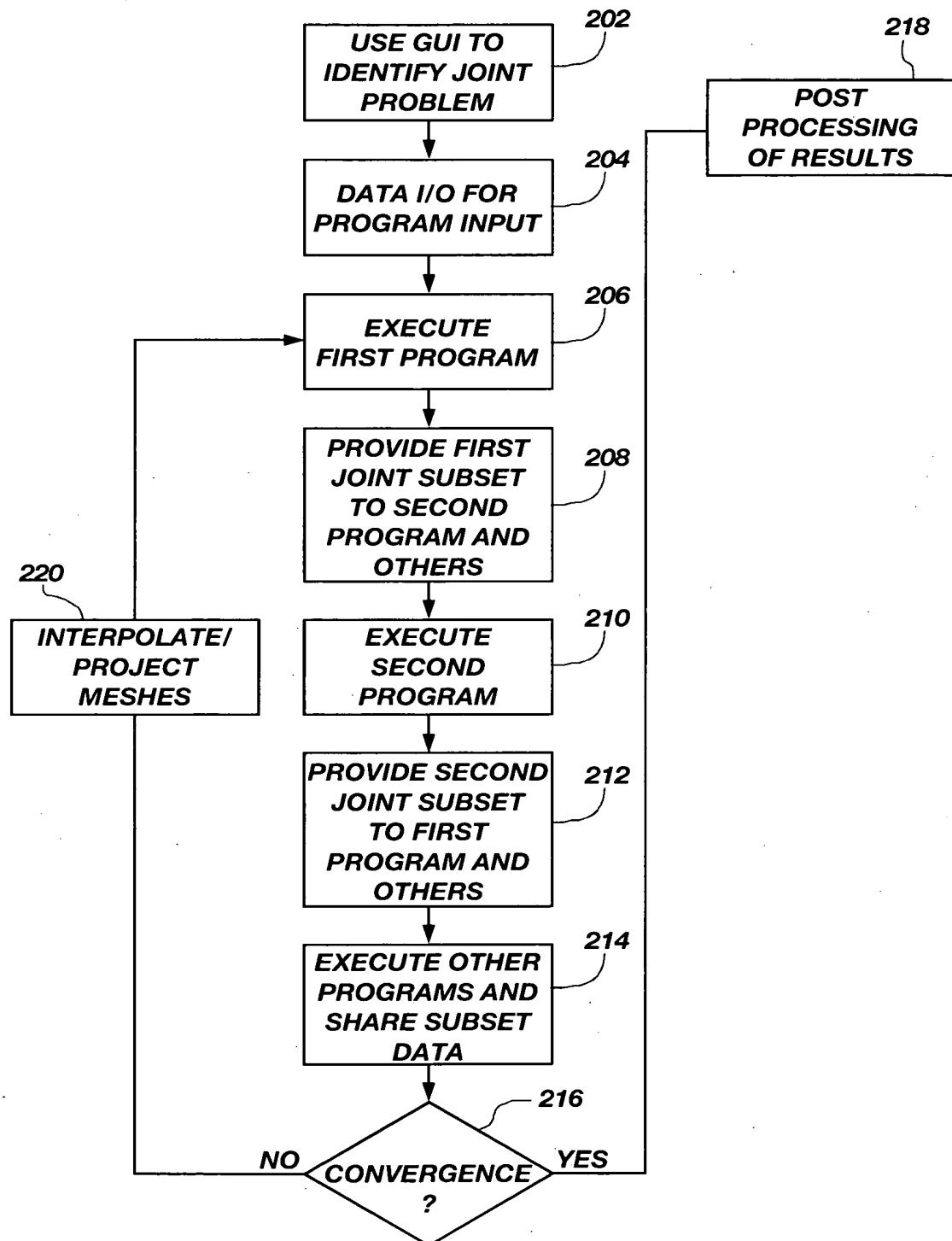


FIG. 2

+

3/48

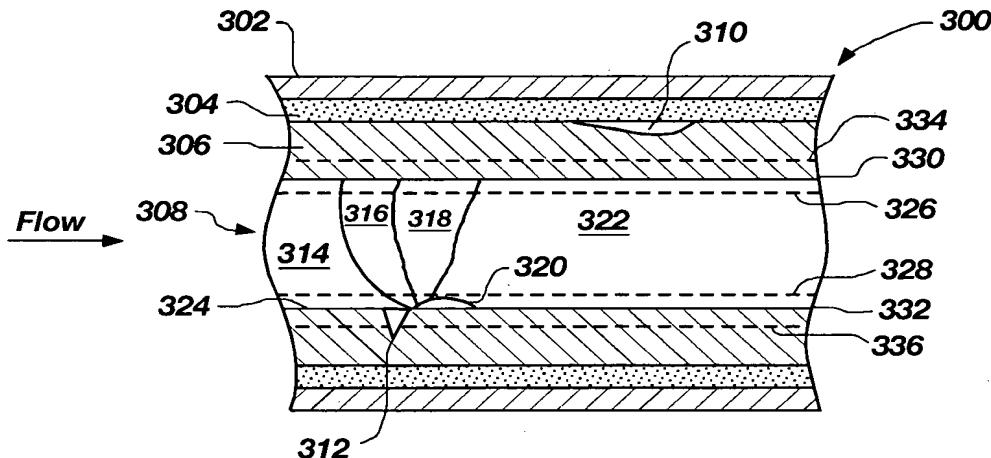


FIG. 3

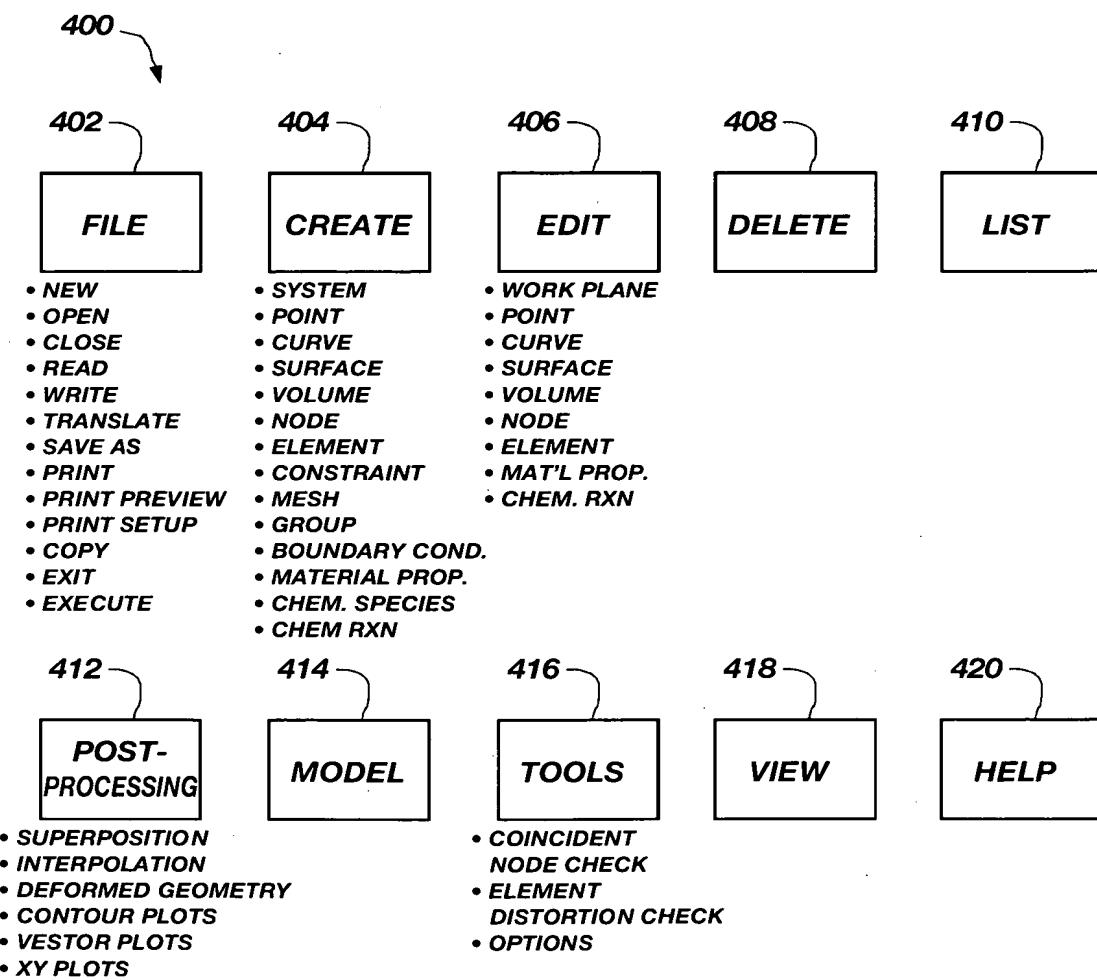


FIG. 4

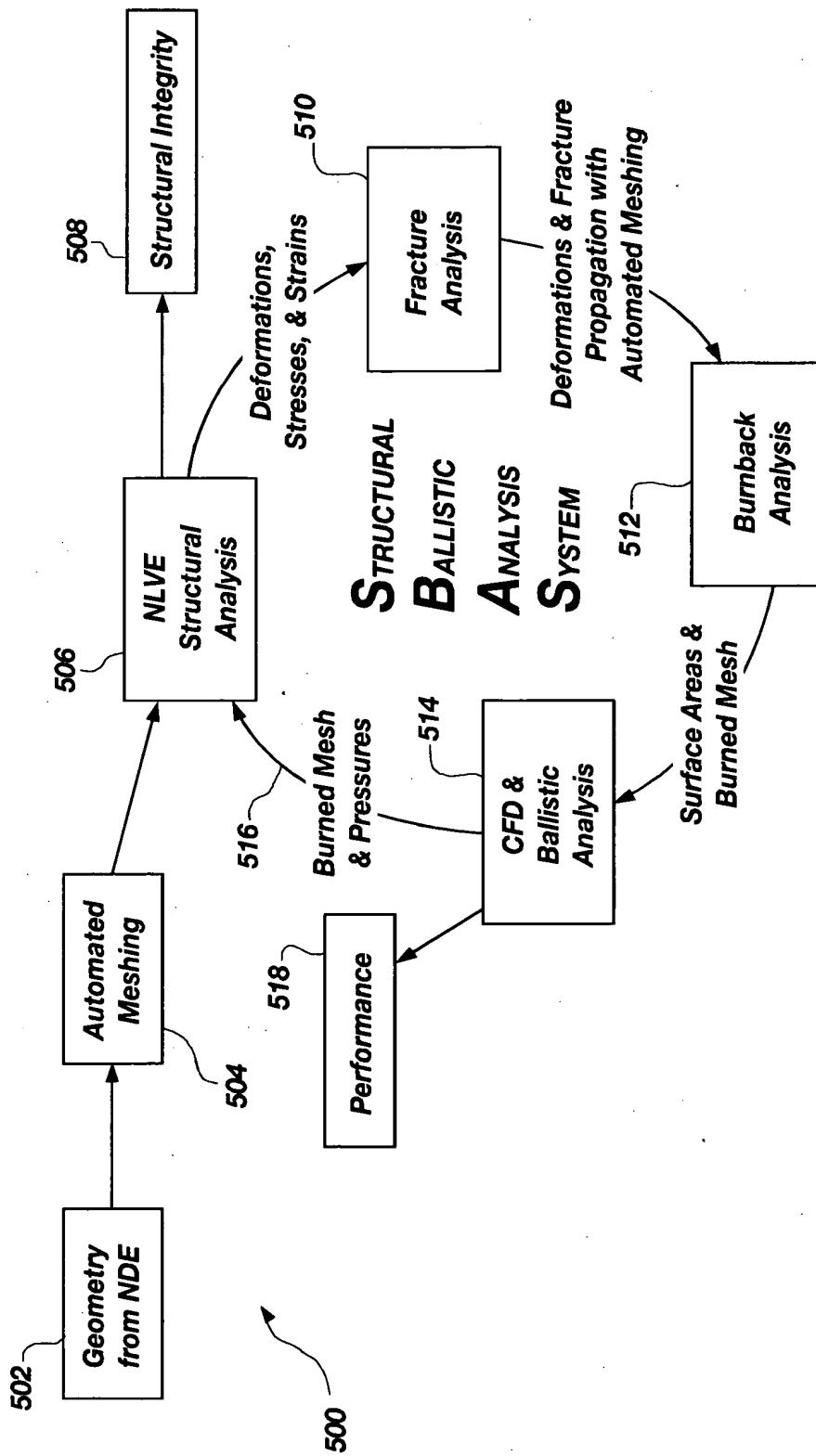
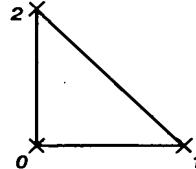
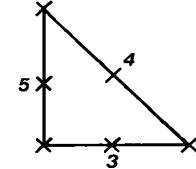
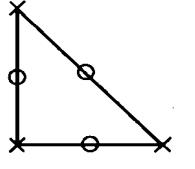
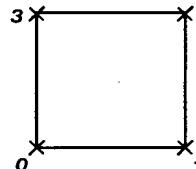
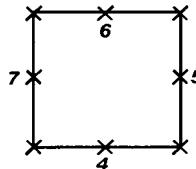
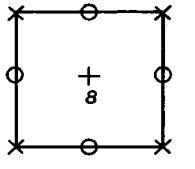
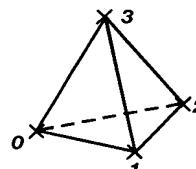
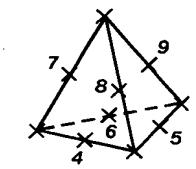
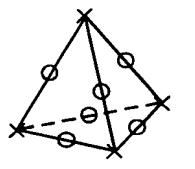
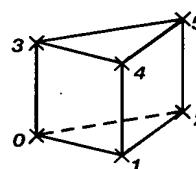
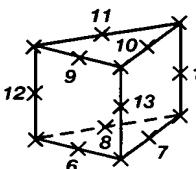
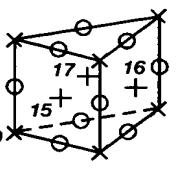
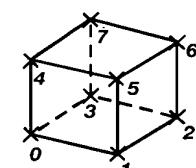
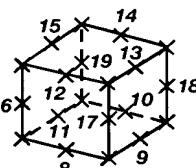
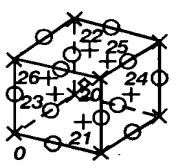


FIG. 5

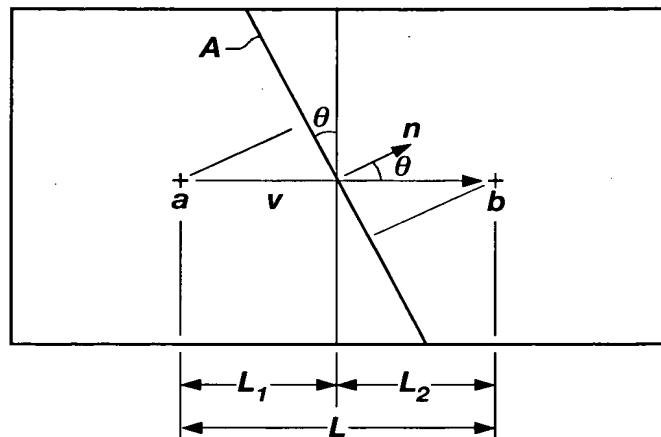
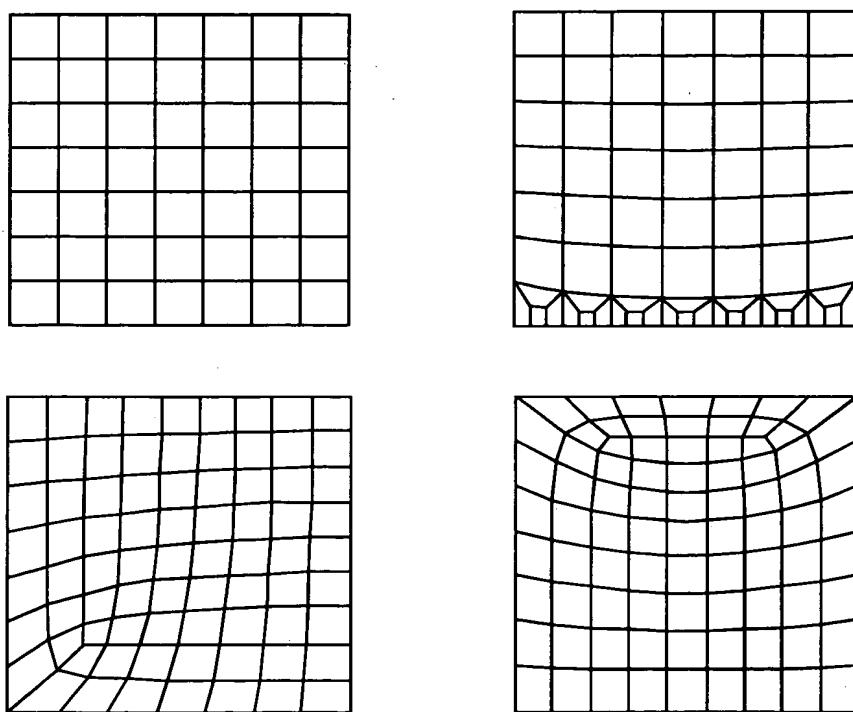
**Node Key:**

- $\times$  Corner and Mid-side node (Required)
- $\circ$  Mid-side node (Optional)
- $+$  Face center node (Optional)
- $\diamond$  Element center node (Optional)

TYPE	LINEAR	PARABOLIC	VARIABLE
Point	$\times_0$		
Line	$\times_0 \times_1$	$\times_2 \times_2 \times_2$	
Triangle	<p>Face 0=0, 1, 3    Face 1=1, 2, 4    Face 2=2, 0, 5</p> 		
Quadrilateral	<p>Face 0=0, 1, 4    Face 1=1, 2, 5    Face 2=2, 3, 6    Face 3=3, 0, 7</p> 		
Tetrahedron	<p>Face 0=0,2,1 6,5,4    Face 1=0,1,3 4,8,7    Face 2=1,2,3 5,9,8    Face 3=2,0,3 6,7,9</p> 		
Wedge	<p>Face 0=0,2,1 8,7,6    Face 1=3,4,5 9,10,11    Face 2=0,1,4,3 6,13,9,12,15    Face 3=1,2,5,4 7,14,10,13,16    Face 4=2,0,3,5, 8,12,11,14,17</p> 		
Brick	<p>Face 0=0,3,2,1 11,10,9,8,21    Face 1=4,5,6,7, 12,13,14,15,22    Face 2=0,1,5,4, 8,17,12,16,23    Face 3=1,2,6,5, 9,18,13,17,24    Face 4=2,3,7,6, 10,19,14,18,25    Face 5=3,0,4,7, 11,16,15,19,26</p> 		

**FIG. 6**

6/48

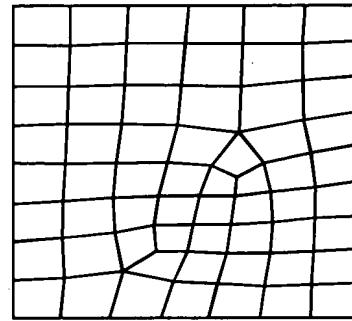
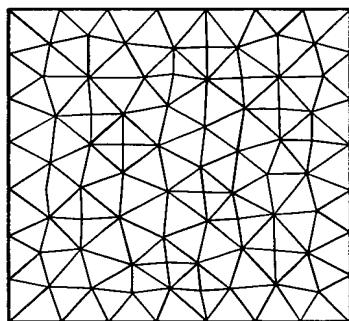
**FIG. 7****FIG. 8**

TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

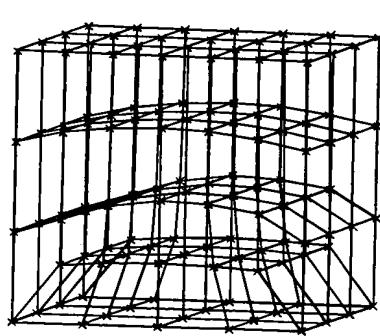
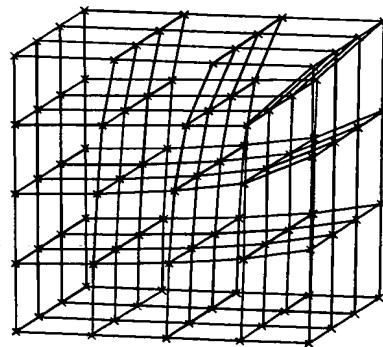
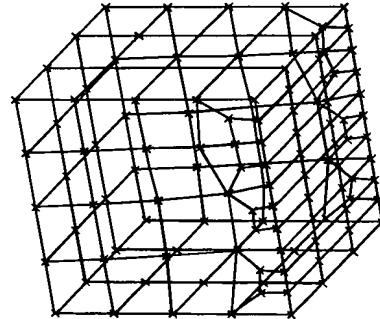
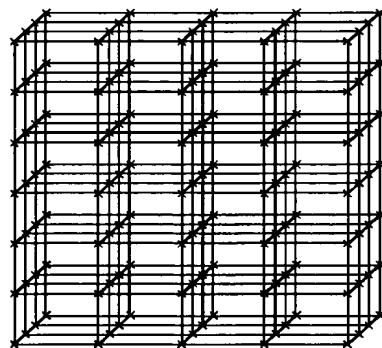
Inventor: Iverson et al.  
Serial No.: 10/005,752  
Docket No.: 2507-5744.1US

+

7/48



**FIG. 9**



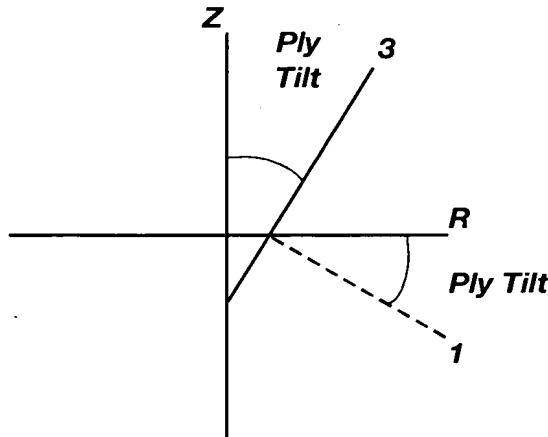
**FIG. 10**

+

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.1US

8/48

**FIG. 11**

**Exploring -D:\**

Name	Size	Type	Modified
Ccm		File Folder	9/21/01 9:21 AM
Cdca		File Folder	9/21/01 9:21 AM
FEM Builder 1.2		File Folder	9/21/01 9:21 AM
Recess		File Folder	9/21/01 9:21 AM
_inst32i.exe	294KB	EX_File	11/19/97 4:05 PM
_isdel.exe	8KB	Application	11/19/97 4:05 PM
_setup.dll	11KB	Application Extension	11/19/97 4:08 PM
_sys1.cab	187KB	Cabinet	9/21/01 8:29 AM
_user1.cab	50KB	Cabinet	9/21/01 8:29 AM
Data.tag	1KB	TAG File	9/21/01 8:29 AM
data1.cab	129KB	Cabinet	9/21/01 8:29 AM
lang.dat	5KB	Movie Clip	5/30/97 11:31 AM
layout.bin	1KB	BIN File	9/21/01 8:29 AM
Mscreate.dir	0KB	Macromedia Director.	9/26/00 12:45 PM
os.dat	1KB	Movie Clip	5/6/97 2:15 PM
py152.exe	4,911KB	Application	7/16/99 10:54 AM
setup.bmp	81KB	Bitmap Image	9/17/01 11:32 AM
Setup.exe	59KB	Application	11/19/97 4:09 PM
Setup.ini	1KB	Configuration Settings	9/21/01 8:29 AM
Setup.lns	58KB	Internet Communicati...	9/21/01 8:28 AM
setup.lid	1KB	LID File	9/21/01 8:29 AM
win32all-125.exe	2,953KB	Application	2/22/00 10:51 AM

22 object(s)

8.54MB (Disk free space: 0 bytes) | My Computer

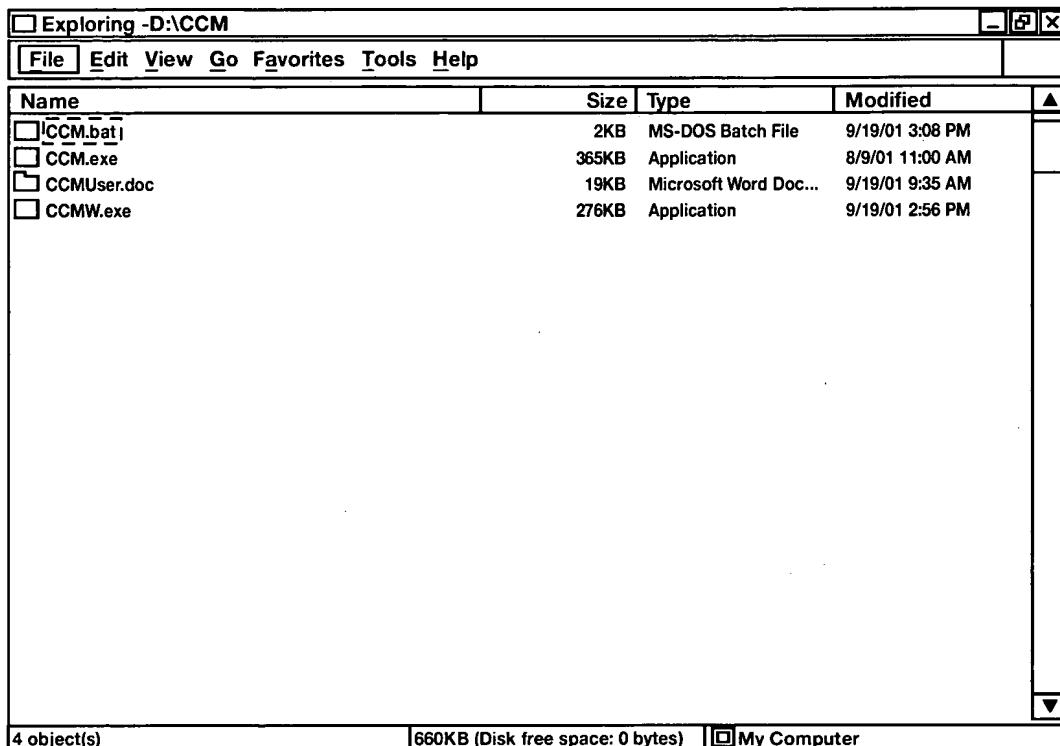
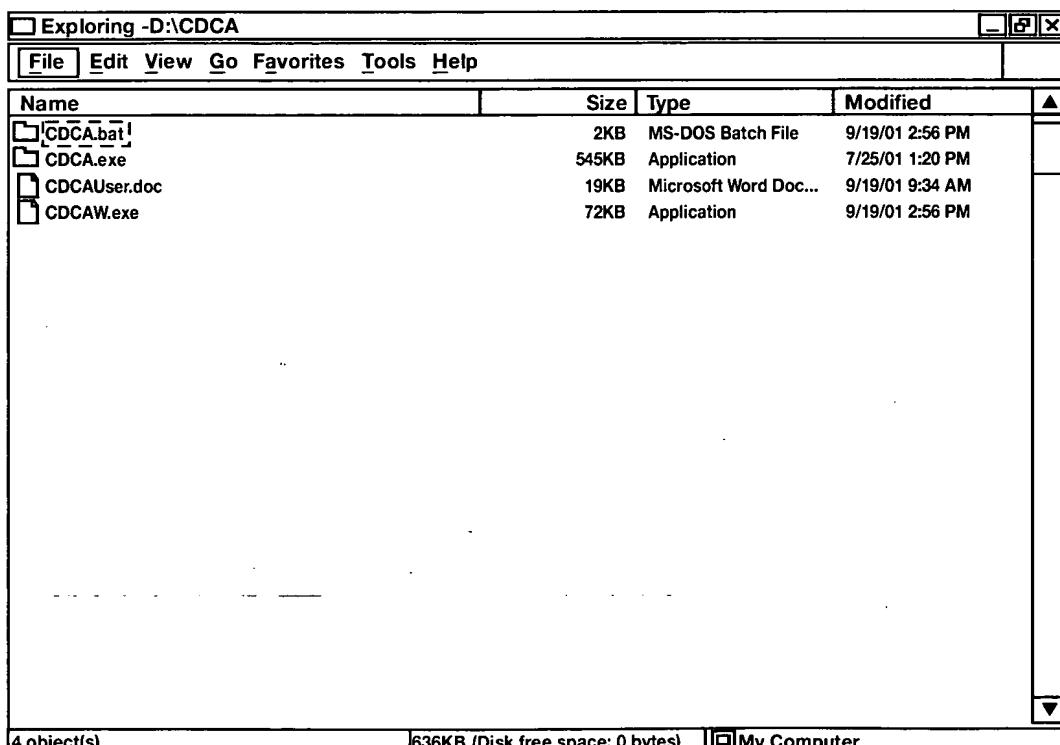
**FIG. 12**

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.

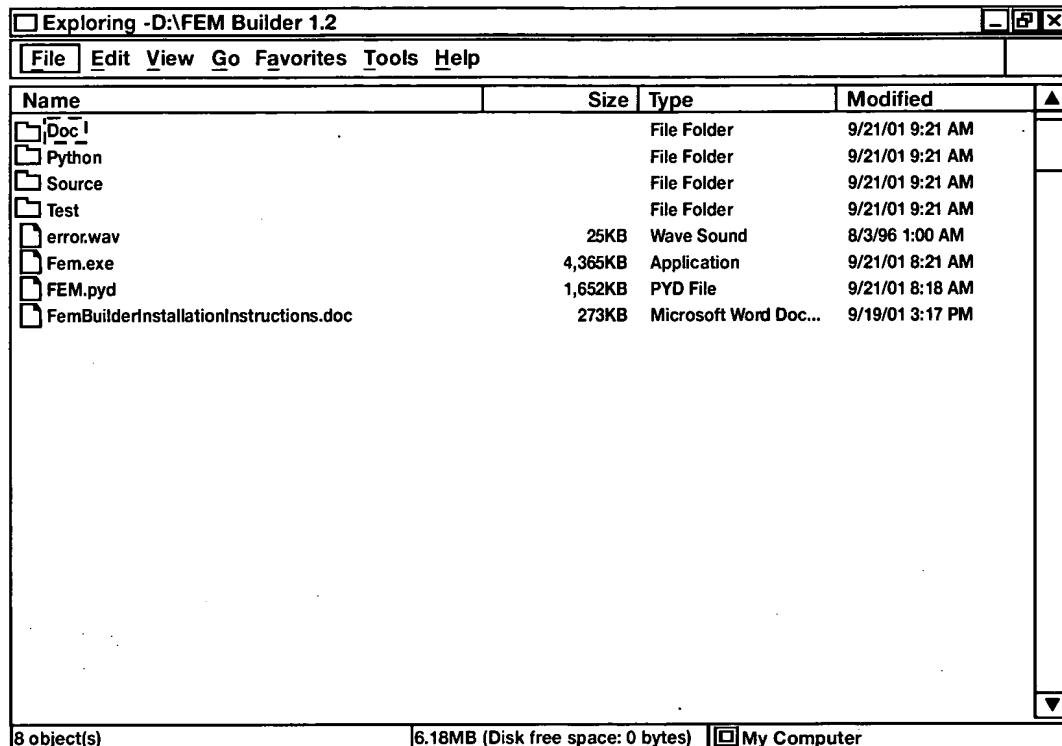
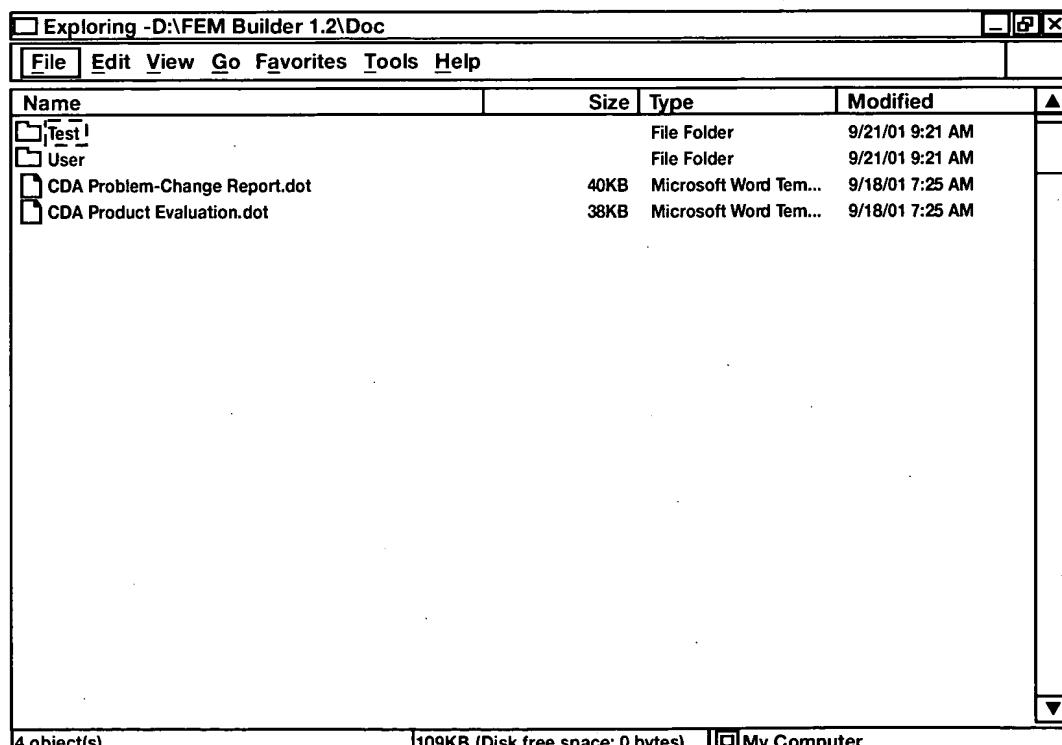
Serial No.: 10/005,752

Docket No.: 2507-5744.1US

**9/48****FIG. 13****FIG. 14**

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.1US

**10/48****FIG. 15****FIG. 16**

11/48

Exploring -D:\FEM Builder 1.2\Doc\Test

Name	Size	Type	Modified
FEMBuilderTest.doc !	168KB	Microsoft Word Doc...	9/18/01 7:09 AM
FEMBuilderTestCoincidentNode_1.doc	43KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestConstrain2d_1.doc	79KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestConstrain2d_2.doc	76KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestConstrain2d_3.doc	77KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestConstrain3d_1.doc	117KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestConstrain3d_2.doc	91KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestConstrain3d_3.doc	102KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestCopyPrint_1.doc	96KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestCopyPrint_2.doc	28KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestCreateBC_1.doc	111KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestCreateBC_10.doc	49KB	Microsoft Word Doc...	9/18/01 7:09 AM
FEMBuilderTestCreateBC_11.doc	49KB	Microsoft Word Doc...	9/18/01 7:09 AM
FEMBuilderTestCreateBC_12.doc	98KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestCreateBC_13.doc	56KB	Microsoft Word Doc...	9/18/01 7:09 AM
FEMBuilderTestCreateBC_2.doc	41KB	Microsoft Word Doc...	9/18/01 7:09 AM
FEMBuilderTestCreateBC_3.doc	39KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestCreateBC_4.doc	38KB	Microsoft Word Doc...	9/18/01 7:09 AM
FEMBuilderTestCreateBC_5.doc	47KB	Microsoft Word Doc...	9/18/01 7:09 AM
FEMBuilderTestCreateBC_6.doc	39KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestCreateBC_7.doc	41KB	Microsoft Word Doc...	9/18/01 7:09 AM
FEMBuilderTestCreateBC_8.doc	40KB	Microsoft Word Doc...	9/18/01 7:09 AM
FEMBuilderTestCreateBC_9.doc	48KB	Microsoft Word Doc...	9/18/01 7:09 AM

210 object(s) 13.6MB (Disk free space: 0 bytes) My Computer

FIG. 17

Exploring -D:\FEM Builder 1.2\Doc\Test

Name	Size	Type	Modified
FEMBuilderTestCreateChemReaction_1.doc	32KB	Microsoft Word Doc...	9/18/01 7:09 AM
FEMBuilderTestCreateGeometry_1.doc	130KB	Microsoft Word Doc...	9/18/01 7:09 AM
FEMBuilderTestCreateGeometry_2.doc	108KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestCreateGeometry_3.doc	109KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestCreateGeometry_4.doc	109KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestCreateGeometry_5.doc	148KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestCreateGeometry_6.doc	59KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestCreateIC_1.doc	106KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestCreateSystem_1.doc	44KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestDeform_1.doc	39KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestDeform_2.doc	40KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestDeform_3.doc	37KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestDeleteBCs_1.doc	412KB	Microsoft Word Doc...	9/18/01 7:09 AM
FEMBuilderTestDeleteMaterial_1.doc	36KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestDeleteSystem_1.doc	73KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestDistortionCheck2d_1.doc	56KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestDistortionCheck3d_1.doc	66KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestEditBCColor_1.doc	28KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestEditCurve_1.doc	87KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestEditCurve_2.doc	126KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestEditCurve_1.doc	69KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestEditElementOrientation_1.doc	76KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestEditElementOrientation_2.doc	118KB	Microsoft Word Doc...	9/18/01 7:10 AM

210 object(s) 13.6MB (Disk free space: 0 bytes) My Computer

FIG. 18

**12/48**

Exploring -D:\FEM Builder 1.2\Doc\Test

Name	Size	Type	Modified
FEMBuilderTestInsertFlaw2D_2.doc	69KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestInterfaceAbaqus_1.doc	30KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestInterfaceAbaqus_2.doc	28KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestInterfaceAnsys_1.doc	73KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestInterfaceAnsys_2.doc	44KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestInterfaceAschar_1.doc	100KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestInterfaceAschar_2.doc	51KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestInterfaceFemDB_1.doc	28KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestInterfaceFemDB_2.doc	27KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestInterfaceFluent_1.doc	31KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestInterfaceFluent_2.doc	98KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestInterfaceGridGen_1.doc	28KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestInterfaceGridGen_2.doc	36KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestInterfaceIdeas_1.doc	44KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceIdeas_2.doc	29KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceMaterialProperty_1.doc	29KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfacePatran_1.doc	46KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceRdCCm_1.doc	30KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestInterfaceRdCCm_2.doc	31KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestInterfaceRdCDCA_1.doc	30KB	Microsoft Word Doc...	9/20/01 12:26 PM
FEMBuilderTestInterfaceRdCDCA_2.doc	31KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestInterfaceRdRecess_1-10.doc	36KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceRdSharp_1.doc	42KB	Microsoft Word Doc...	9/18/01 12:26 PM

210 object(s) 13.6MB (Disk free space: 0 bytes) My Computer

**FIG. 19**

Exploring -D:\FEM Builder 1.2\Doc\Test

Name	Size	Type	Modified
FEMBuilderTestEditMeshAttribute_1.doc	37KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestEditNode_1.doc	68KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestEditWorkplane_1.doc	32KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestEditWorkplane_2.doc	42KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestExecuteAbaqus_1.doc	36KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestExecuteCCM_1.doc	32KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestExecuteCDC_1.doc	33KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestExecuteFluent_1.doc	37KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestExecuteRecess_1.doc	33KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestFemCreate_1.doc	80KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestFemCreateGroup.doc	49KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestFemDelete_1.doc	93KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestFemDelete_2.doc	36KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestFemEditColor_1.doc	91KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestFracture_1.doc	105KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestFracture_2.doc	65KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestFracture_3.doc	71KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestFracture_4.doc	112KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestGeometryCreateGroup.doc	55KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestGeometryDelete_1.doc	154KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestGeometryEditColor_1.doc	175KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestHelp_1.doc	23KB	Microsoft Word Doc...	9/18/01 7:10 AM
FEMBuilderTestInsertFlaw2D_1.doc	77KB	Microsoft Word Doc...	9/18/01 7:10 AM

210 object(s) 13.6MB (Disk free space: 0 bytes) My Computer

**FIG. 20**

**13/48**

**Exploring -D:\FEM Builder 1.2\Doc\Test**

<b>Name</b>	<b>Size</b>	<b>Type</b>	<b>Modified</b>
FEMBuilderTestInterfaceRdSharp_2.doc	42KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestInterfaceRdSharp_3.doc	42KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestInterfaceRdSharp_4.doc	99KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestInterfaceRdSinda_1.doc	28KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceRdSinda_2.doc	28KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceRdTexChem_1.doc	27KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceRwRecess_1.doc	31KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestInterfaceRwRecess_2.doc	33KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestInterfaceRwRecess_3.doc	34KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestInterfaceRwRecess_4.doc	34KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestInterfaceWrCCM_1.doc	30KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceWrCCM_2.doc	31KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceWrCDCA_1.doc	30KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceWrCDCA_2.doc	30KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceWrRecess_1.doc	32KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceWrRecess_2.doc	41KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceWrRecess_3.doc	41KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceWrRecess_4.doc	45KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceWrRecess_5.doc	46KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceWrSinda_1.doc	28KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceWrSinda_2.doc	28KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterfaceWrTexChem_1.doc	28KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestInterpolateResults_1.doc	50KB	Microsoft Word Doc...	9/18/01 7:11 AM

210 object(s) 13.6MB (Disk free space: 0 bytes)  My Computer

**FIG. 21**

**Exploring -D:\FEM Builder 1.2\Doc\Test**

<b>Name</b>	<b>Size</b>	<b>Type</b>	<b>Modified</b>
FEMBuilderTestList_1.doc	34KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestList_2.doc	44KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestList_3.doc	37KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestListBC_1.doc	111KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestListBC_2.doc	52KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestMaterialProperty_1.doc	38KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestMaterialProperty_2.doc	26KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestMaterialProperty_3.doc	23KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestMesh2d_1-12.doc	280KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestMesh2d_13.doc	133KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestMesh3d_13.doc	107KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestMesh3d_14.doc	106KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestMesh3d_1-8.doc	310KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestModel_1.doc	256KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestModelSweep_1.doc	69KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestModelSweep_2.doc	62KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestModelSweep_3.doc	49KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestModelSweep_4.doc	62KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestMoveCopy_1.doc	55KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestMoveCopy_10.doc	63KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestMoveCopy_11.doc	52KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestMoveCopy_2.doc	57KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestMoveCopy_3.doc	56KB	Microsoft Word Doc...	9/18/01 12:26 PM

210 object(s) 13.6MB (Disk free space: 0 bytes)  My Computer

**FIG. 22**

14/48

Exploring -D:\FEM Builder 1.2\Doc\Test

Name	Size	Type	Modified
FEMBuilderTestMoveCopy_4.doc	60KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestMoveCopy_5.doc	56KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestMoveCopy_6.doc	67KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestMoveCopy_7.doc	84KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestMoveCopy_8.doc	53KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestMoveCopy_9.doc	50KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestPostAverageResult.doc	80KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestPostContour_1.doc	97KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestPostContour_2.doc	32KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestPostDeform.doc	41KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestPostResults_1.doc	46KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestPostResults_2.doc	33KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestPostResults_3.doc	23KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestPostResults_4.doc	25KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestPostResults_5.doc	25KB	Microsoft Word Doc...	9/18/01 7:11 AM
FEMBuilderTestPostVector.doc	32KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestPostXYPlot_1.doc	34KB	Microsoft Word Doc...	9/21/01 8:15 AM
FEMBuilderTestPostXYPlot_2.doc	27KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestPostXYPlot_3.doc	28KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestPostXYPlot_4.doc	62KB	Microsoft Word Doc...	9/21/01 8:15 AM
FEMBuilderTestPostXYPlot_5.doc	48KB	Microsoft Word Doc...	9/21/01 7:32 AM
FEMBuilderTestPostXYPlot_6.doc	133KB	Microsoft Word Doc...	9/21/01 8:15 AM
FEMBuilderTestPostXYPlot_7.doc	32KB	Microsoft Word Doc...	9/21/01 8:15 AM

210 object(s) 13.6MB (Disk free space: 0 bytes) My Computer

FIG. 23

Exploring -D:\FEM Builder 1.2\Doc\Test

Name	Size	Type	Modified
FEMBuilderTestPostXYPlot_8.doc	143KB	Microsoft Word Doc...	9/21/01 7:07 AM
FEMBuilderTestPostXYPlot_9.doc	102KB	Microsoft Word Doc...	9/21/01 7:07 AM
FEMBuilderTestRefineMesh_1.doc	164KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestRefineMesh_2.doc	81KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestRefineMesh_3.doc	86KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestRefineMesh_4.doc	83KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestRefineMesh_5.doc	64KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSelectAnalysisresults_1.doc	35KB	Microsoft Word Doc...	9/20/01 10:38 AM
FEMBuilderTestSelectCurve_1.doc	55KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSelectElement_1.doc	152KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSelectFace_1.doc	56KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSelectGroup_1.doc	27KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSelectMaterialProperties_1.doc	28KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSelectNode_1.doc	159KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSelectPoint_1.doc	51KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSelectSurface_1.doc	65KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSelectSystem_1.doc	28KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSelectVolume_1.doc	80KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSmooth2d_1.doc	35KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSmooth2d_2.doc	37KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSmooth2d_3.doc	42KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSolverLess2d_1.doc	271KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardAxisym1.doc	28KB	Microsoft Word Doc...	9/18/01 7:12 AM

210 object(s) 13.6MB (Disk free space: 0 bytes) My Computer

FIG. 24

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.1US

15/48

Exploring -D:\FEM Builder 1.2\Doc\Test

Name	Size	Type	Modified
FEMBuilderTestStandardEdgeNotched2D.doc	164KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardEdgeNotched3D.doc	217KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardFluidCFD1.doc	36KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardHeat0.doc	44KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardHeat1.doc	47KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardHTAxism1.doc	50KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardNozzle1.doc	38KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardPlaneE1.doc	25KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardPlaneE2.doc	30KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardPlaneS1.doc	25KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardPlaneS2.doc	30KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardSolid1L.doc	26KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardSolid1Q.doc	27KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardSolidCFD1.doc	36KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSubModel_1.doc	53KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestSubModel_2.doc	51KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSubModel_3.doc	54KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestThermalAblation_1.doc	68KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestThermalAblation_2.doc	100KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestToolsOptions_1.doc	28KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestViewBlankUnblank_1.doc	65KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestViewDisplaySettings_1.doc	252KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestViewOrientation_1.doc	41KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestViewOrientation_2.doc	228KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestViewOrientation_3.doc	69KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestViewScreenOptions_1.doc	59KB	Microsoft Word Doc...	9/18/01 7:12 AM

210 object(s) 13.6MB (Disk free space: 0 bytes) My Computer

FIG. 25

Exploring -D:\FEM Builder 1.2\Doc\Test

Name	Size	Type	Modified
FEMBuilderTestStandardHeat1.doc	47KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardHTAxism1.doc	50KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardNozzle1.doc	38KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardPlaneE1.doc	25KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardPlaneE2.doc	30KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardPlaneS1.doc	25KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardPlaneS2.doc	30KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardSolid1L.doc	26KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardSolid1Q.doc	27KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestStandardSolidCFD1.doc	36KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSubModel_1.doc	53KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestSubModel_2.doc	51KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestSubModel_3.doc	54KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestThermalAblation_1.doc	68KB	Microsoft Word Doc...	9/18/01 12:26 PM
FEMBuilderTestThermalAblation_2.doc	100KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestToolsOptions_1.doc	28KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestViewBlankUnblank_1.doc	65KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestViewDisplaySettings_1.doc	252KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestViewOrientation_1.doc	41KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestViewOrientation_2.doc	228KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestViewOrientation_3.doc	69KB	Microsoft Word Doc...	9/18/01 7:12 AM
FEMBuilderTestViewScreenOptions_1.doc	59KB	Microsoft Word Doc...	9/18/01 7:12 AM

210 object(s) 13.6MB (Disk free space: 0 bytes) My Computer

FIG. 26

16/48

Exploring -D:\FEM Builder 1.2\Doc\User

Name	Size	Type	Modified
FEMBuilderPython.doc	410KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderSolvers.doc	23KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderSolversLess2D.doc	400KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderTraining.doc	597KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUser.doc	111KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserAbaqusInterface.doc	54KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserAnsysInterface.doc	51KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserAppendixAbaqusSupport.doc	111KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserAppendixAnsysSupport.doc	173KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserAppendixElementLibrary.doc	256KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserAppendixMatProperties.doc	40KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserAppendixSelection.doc	65KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserAscharInterface.doc	24KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserCDCA-CCMInterface.doc	39KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserChemicalProperties.doc	25KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserCreateFEM.doc	102KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserCreateGeometry.doc	38KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserDeleteFEM.doc	25KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserDeleteGeometry.doc	25KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserEditFEM.doc	46KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserEditGeometry.doc	32KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserExecution.doc	48KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserFluentInterface.doc	43KB	Microsoft Word Doc...	9/17/01 11:34 AM

44 object(s) 3.98MB (Disk free space: 0 bytes) [My Computer]

FIG. 27

Exploring -D:\FEM Builder 1.2\Doc\User

Name	Size	Type	Modified
FEMBuilderUserFluentInterface.doc	43KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserGridGenInterface.doc	23KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserIdeasMSInterface.doc	30KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserIntroduction.doc	43KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserListFEM.doc	25KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserListGeometry.doc	26KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserMaterialProperties.doc	29KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserMeshGeneration.doc	148KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserOverview.doc	41KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserPatranInterface.doc	64KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserPostFractureMechanics.doc	181KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserPostResultCalculation.doc	28KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserPostResultDisplay.doc	40KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserPostXYPlotParameters.doc	27KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserReadSharpInterface.doc	26KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserRecessInterface.doc	45KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserSindaInterface.doc	42KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserSinGenInterface.doc	23KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserTexChemInterface.doc	24KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserThermalAblation.doc	306KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserTools.doc	151KB	Microsoft Word Doc...	9/17/01 11:34 AM
FEMBuilderUserView.doc	30KB	Microsoft Word Doc...	9/17/01 11:34 AM

44 object(s) 3.98MB (Disk free space: 0 bytes) [My Computer]

FIG. 28

**TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS**

Inventor: Iverson et al.  
Serial No.: 10/005,752  
Docket No.: 2507-5744.IUS

**17/48**

**Exploring -D:\FEM Builder 1.2\Python**

Name	Size	Type	Modified
CExecute.py	9KB	Python File	9/17/01 11:34 AM
CExecute-Abaqus.py	8KB	Python File	9/17/01 11:34 AM
CExecuteFluent.py	13KB	Python File	9/17/01 11:34 AM
CSolve.py	26KB	Python File	9/17/01 11:34 AM
CSolveCoupled.py	20KB	Python File	9/17/01 11:34 AM
CSolveFSI.py	2KB	Python File	9/17/01 11:34 AM
CSolveFSILess2D.py	9KB	Python File	9/17/01 11:34 AM
FEMHostTableExample.txt	2KB	Text Document	9/19/01 8:36 AM
FEMHostTable.txt	3KB	Text Document	9/19/01 8:35 AM
FEMPythonExec.py	28KB	Python File	9/17/01 11:34 AM
FEMPythonFileIO.py	12KB	Python File	9/17/01 11:34 AM
FEMPythonTools.py	13KB	Python File	9/17/01 11:34 AM

12 object(s) 137KB (Disk free space: 0 bytes) My Computer

**FIG. 29**

**Exploring -D:\FEM Builder 1.2\Source**

Name	Size	Type	Modified
FACLib		File Folder	9/12/01 9:21 AM
FEMBuilder		File Folder	9/12/01 9:21 AM
FEMLib		File Folder	9/12/01 9:21 AM
FEMPython		File Folder	9/12/01 9:21 AM
PythonLib		File Folder	9/12/01 9:21 AM
SciEngLib		File Folder	9/12/01 9:21 AM

6 object(s) 46.0KB (Disk free space: 0 bytes) My Computer

**FIG. 30**

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.1US

18/48

**Exploring -D:\FEM Builder 1.2\Source\FACLib**

Name	Size	Type	Modified
ArbArray.hpp	10KB	HPP File	9/17/01 11:30 AM
ArbBdrySeg.hpp	6KB	HPP File	9/17/01 11:30 AM
ArbBSpline2D.cpp	24KB	CPP File	9/17/01 11:30 AM
ArbBSpline2D.hpp	8KB	HPP File	9/17/01 11:30 AM
ArbCoord2D.hpp	12KB	HPP File	9/17/01 11:30 AM
ArbFeasableRegion.cpp	10KB	CPP File	9/17/01 11:30 AM
ArbFeasableRegion.hpp	5KB	HPP File	9/17/01 11:30 AM
ArbGeom2DMixLn.cpp	10KB	CPP File	9/17/01 11:30 AM
ArbGeom2DMixLn.hpp	2KB	HPP File	9/17/01 11:30 AM
ArbHashTable.hpp	35KB	HPP File	9/17/01 11:30 AM
ArbHeap.hpp	16KB	HPP File	9/17/01 11:30 AM
ArbKDTree2D.cpp	16KB	CPP File	9/17/01 11:30 AM
ArbKDTree2D.hpp	9KB	HPP File	9/17/01 11:30 AM
ArbMsh.hpp	5KB	HPP File	9/17/01 11:30 AM
ArbMshCleanup.cpp	31KB	CPP File	9/17/01 11:30 AM
ArbMshCrackRegion2D.cpp	68KB	CPP File	9/17/01 11:30 AM
ArbMshCrackRegion2D.hpp	50KB	HPP File	9/17/01 11:30 AM
ArbMshEdgeList.cpp	86KB	CPP File	9/17/01 11:30 AM
ArbMshEdgeList.hpp	28KB	HPP File	9/17/01 11:30 AM
ArbMshQuad2D.cpp	179KB	CPP File	9/17/01 11:30 AM
ArbMshRegion2D.cpp	102KB	CPP File	9/17/01 11:30 AM
ArbMshRegion2D.hpp	62KB	HPP File	9/17/01 11:30 AM
ArbMshSmooth2D.cpp	51KB	CPP File	9/17/01 11:30 AM

37 object(s) | 133MB (Disk free space: 0 bytes) | My Computer

**FIG. 31**

**Exploring -D:\FEM Builder 1.2\Source\FACLib**

Name	Size	Type	Modified
ArbMshCrackRegion2D.cpp	68KB	CPP File	9/17/01 11:30 AM
ArbMshCrackRegion2D.hpp	50KB	HPP File	9/17/01 11:30 AM
ArbMshEdgeList.cpp	86KB	CPP File	9/17/01 11:30 AM
ArbMshEdgeList.hpp	28KB	HPP File	9/17/01 11:30 AM
ArbMshQuad2D.cpp	179KB	CPP File	9/17/01 11:30 AM
ArbMshRegion2D.cpp	102KB	CPP File	9/17/01 11:30 AM
ArbMshRegion2D.hpp	62KB	HPP File	9/17/01 11:30 AM
ArbMshSmooth2D.cpp	51KB	CPP File	9/17/01 11:30 AM
ArbMshSmooth2D.hpp	18KB	HPP File	9/17/01 11:30 AM
ArbMshTopo2D.cpp	92KB	CPP File	9/17/01 11:30 AM
ArbMshTopo2D.hpp	54KB	HPP File	9/17/01 11:30 AM
ArbQuadTree.cpp	26KB	CPP File	9/17/01 11:30 AM
ArbQuadTree.hpp	14KB	HPP File	9/17/01 11:30 AM
ArbQueue.hpp	6KB	HPP File	9/17/01 11:30 AM
ArbRectangle.hpp	3KB	HPP File	9/17/01 11:30 AM
ArbRmshRegion2D.cpp	286KB	CPP File	9/17/01 11:30 AM
ArbRmshRegion2D.hpp	15KB	HPP File	9/17/01 11:30 AM
ArbSet.cpp	26KB	CPP File	9/17/01 11:30 AM
ArbSet.hpp	8KB	HPP File	9/17/01 11:30 AM
ArbSmallSet.hpp	4KB	HPP File	9/17/01 11:30 AM
FACLib.dsp	6KB	DSP File	9/17/01 11:30 AM
FACLib.dsw	1KB	DSW File	9/17/01 11:30 AM

37 object(s) | 1.33MB (Disk free space: 0 bytes) | My Computer

**FIG. 32**

19/48

**Exploring -D:\FEM Builder 1.2\Source\FemBuilder**

Name	Size	Type	Modified
res.l		File Folder	9/21/01 9:21 AM
CCoordinateInput.cpp	9KB	CPP File	9/17/01 11:31 AM
CCoordinateInput.h	2KB	H File	9/17/01 11:31 AM
CFemDBUtil.cpp	8KB	CPP File	9/17/01 11:31 AM
CFemDBUtil.h	1KB	H File	9/17/01 11:31 AM
CGridControl.cpp	13KB	CPP File	9/17/01 11:31 AM
CGridControl.h	4KB	H File	9/17/01 11:31 AM
CGridInput.cpp	15KB	CPP File	9/17/01 11:31 AM
CGridInput.h	6KB	H File	9/17/01 11:31 AM
CheckCoincidenceDlg.cpp	6KB	CPP File	9/17/01 11:31 AM
CheckCoincidenceDlg.h	4KB	H File	9/17/01 11:31 AM
CheckDistortionDlg.cpp	3KB	CPP File	9/17/01 11:31 AM
CheckDistortionDlg.h	2KB	H File	9/17/01 11:31 AM
ChildFrm.cpp	2KB	CPP File	9/17/01 11:31 AM
ChildFrm.h	2KB	H File	9/17/01 11:31 AM
CListFileMFC.cpp	3KB	CPP File	9/17/01 11:31 AM
CListFileMFC.h	2KB	H File	9/17/01 11:31 AM
ColorDlg.cpp	9KB	CPP File	9/17/01 11:31 AM
ColorDlg.h	3KB	H File	9/17/01 11:31 AM
CopyMatPropertyDlg.cpp	8KB	CPP File	9/17/01 11:31 AM
CopyMatPropertyDlg.h	3KB	H File	9/17/01 11:31 AM
CreateArcDlg.cpp	14KB	CPP File	9/17/01 11:31 AM
CreateArcDlg.h	3KB	H File	9/17/01 11:31 AM

320 object(s)      3.31MB (Disk free space: 0 bytes)      My Computer

**FIG. 33**

**Exploring -D:\FEM Builder 1.2\Source\FemBuilder**

Name	Size	Type	Modified
CreateBCDlg.h	11KB	H File	9/17/01 11:31 AM
CreateBCFluid.cpp	22KB	CPP File	9/17/01 11:31 AM
CreateBCFluid.h	9KB	H File	9/17/01 11:31 AM
CreateBCInterpolateDlg.cpp	11KB	CPP File	9/18/01 12:26 PM
CreateBCInterpolateDlg.h	4KB	H File	9/17/01 11:31 AM
CreateBCInsentropicDlg.cpp	6KB	CPP File	9/17/01 11:31 AM
CreateBCInsentropicDlg.h	3KB	H File	9/17/01 11:31 AM
CreateBCTabular.cpp	9KB	CPP File	9/17/01 11:31 AM
CreateBCTabular.h	3KB	H File	9/17/01 11:31 AM
CreateChemReactionDlg.cpp	5KB	CPP File	9/17/01 11:31 AM
CreateChemReactionDlg.h	2KB	H File	9/17/01 11:31 AM
CreateChemSpeciesDlg.cpp	3KB	CPP File	9/17/01 11:31 AM
CreateChemSpeciesDlg.h	2KB	H File	9/17/01 11:31 AM
CreateCircleDlg.cpp	10KB	CPP File	9/17/01 11:31 AM
CreateCircleDlg.h	3KB	H File	9/17/01 11:31 AM
CreateConstraintDlg.cpp	9KB	CPP File	9/17/01 11:31 AM
CreateConstraintDlg.h	4KB	H File	9/17/01 11:31 AM
CreateCurveOffsetDlg.cpp	6KB	CPP File	9/17/01 11:31 AM
CreateCurveOffsetDlg.h	3KB	H File	9/17/01 11:31 AM
CreateGroupDlg.cpp	9KB	CPP File	9/17/01 11:31 AM
CreateGroupDlg.h	3KB	H File	9/17/01 11:31 AM
CreateInitialConditionsDlg.cpp	22KB	CPP File	9/17/01 11:31 AM
CreateInitialConditionsDlg.h	8KB	H File	9/17/01 11:31 AM

320 object(s)      3.31MB (Disk free space: 0 bytes)      My Computer

**FIG. 34**

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.1US

20/48

Exploring -D:\FEM Builder 1.2\Source\FemBuilder

Name	Size	Type	Modified
CreateLineDlg.h	3KB	H File	9/17/01 11:31 AM
CreateNodeDlg.cpp	2KB	CPP File	9/17/01 11:31 AM
CreateNodeDlg.h	2KB	H File	9/17/01 11:31 AM
CreatePointBetweenDlg.cpp	12KB	CPP File	9/17/01 11:31 AM
CreatePointBetweenDlg.h	3KB	H File	9/17/01 11:31 AM
CreatePointCoordinateDlg.cpp	6KB	CPP File	9/17/01 11:31 AM
CreatePointCoordinateDlg.h	3KB	H File	9/17/01 11:31 AM
CreatePointOnCurveDlg.cpp	15KB	CPP File	9/17/01 11:31 AM
CreatePointOnCurveDlg.h	3KB	H File	9/17/01 11:31 AM
CreateSplineDlg.cpp	18KB	CPP File	9/17/01 11:31 AM
CreateSplineDlg.h	3KB	H File	9/17/01 11:31 AM
CreateSurfaceBoundaryDlg.cpp	8KB	CPP File	9/17/01 11:31 AM
CreateSurfaceBoundaryDlg.h	2KB	H File	9/17/01 11:31 AM
CreateSurfaceExtrudeDlg.cpp	13KB	CPP File	9/17/01 11:31 AM
CreateSurfaceExtrudeDlg.h	3KB	H File	9/17/01 11:31 AM
CreateSurfaceRevolveDlg.cpp	12KB	CPP File	9/17/01 11:31 AM
CreateSurfaceRevolveDlg.h	3KB	H File	9/17/01 11:31 AM
CreateSurfaceSweepDlg.cpp	7KB	CPP File	9/17/01 11:31 AM
CreateSurfaceSweepDlg.h	3KB	H File	9/17/01 11:31 AM
CreateSystemDlg.cpp	12KB	CPP File	9/17/01 11:31 AM
CopySystemDlg.h	3KB	H File	9/17/01 11:31 AM
CreateVolumeBoundaryDlg.cpp	6KB	CPP File	9/17/01 11:31 AM
CreateVolumeBoundaryDlg.h	2KB	H File	9/17/01 11:31 AM

320 object(s) 3.31MB (Disk free space: 0 bytes) My Computer

**FIG. 35**

Exploring -D:\FEM Builder 1.2\Source\FemBuilder

Name	Size	Type	Modified
CreateVolumeExtrudeDlg.cpp	11KB	CPP File	9/17/01 11:31 AM
CreateVolumeExtrudeDlg.h	3KB	H File	9/17/01 11:31 AM
CreateVolumeRevolveDlg.cpp	10KB	CPP File	9/17/01 11:31 AM
CreateVolumeRevolveDlg.h	3KB	H File	9/18/01 12:26 PM
CreateVolumeSweepDlg.cpp	2KB	CPP File	9/17/01 11:31 AM
CreateVolumeSweepDlg.h	2KB	H File	9/17/01 11:31 AM
CWizardPage.cpp	2KB	CPP File	9/17/01 11:31 AM
CWizardPage.h	2KB	H File	9/17/01 11:31 AM
CWizardSheet.cpp	10KB	CPP File	9/17/01 11:31 AM
CWizardSheet.h	2KB	H File	9/17/01 11:31 AM
DefineVectorDlg.cpp	14KB	CPP File	9/17/01 11:31 AM
DefineVectorDlg.h	3KB	H File	9/17/01 11:31 AM
DeformMeshDlg.cpp	4KB	CPP File	9/17/01 11:31 AM
DeformMeshDlg.h	2KB	H File	9/17/01 11:31 AM
DisplayOptionDlg.cpp	25KB	CPP File	9/17/01 3:00 PM
DisplayOptionDlg.h	8KB	H File	9/17/01 11:31 AM
EditBCCColorDlg.cpp	6KB	CPP File	9/17/01 11:31 AM
EditBCCColorDlg.h	3KB	H File	9/17/01 11:31 AM
EditColorPS.cpp	9KB	CPP File	9/17/01 11:31 AM
EditColorPS.h	3KB	H File	9/17/01 11:31 AM
EditCurveSplitDlg.cpp	11KB	CPP File	9/17/01 11:31 AM
EditCurveSplitDlg.h	3KB	H File	9/17/01 11:31 AM
EditCurveSubdivisionDlg.cpp	9KB	CPP File	9/17/01 11:31 AM

320 object(s) 3.31MB (Disk free space: 0 bytes) My Computer

**FIG. 36**

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.1US

21/48

Exploring -D:\FEM Builder 1.2\Source\FemBuilder

Name	Size	Type	Modified
EditCurveSubdivisionDlg.h	3KB	H File	9/17/01 11:31 AM
EditCurveTrimDlg.cpp	9KB	CPP File	9/17/01 11:31 AM
EditCurveTrimDlg.h	3KB	H File	9/17/01 11:31 AM
EditElementAttributesDlg.cpp	14KB	CPP File	9/17/01 11:31 AM
EditElementAttributesDlg.h	4KB	H File	9/17/01 11:31 AM
EditElementDlg.cpp	18KB	CPP File	9/17/01 11:31 AM
EditElementDlg.h	4KB	H File	9/17/01 11:31 AM
EditElementOrientDlg.cpp	46KB	CPP File	9/17/01 11:31 AM
EditElementOrientDlg.h	15KB	H File	9/17/01 11:31 AM
EditGravityDlg.cpp	2KB	CPP File	9/17/01 11:31 AM
EditGravityDlg.h	2KB	H File	9/17/01 11:31 AM
EditMeshAttributeDlg.cpp	6KB	CPP File	9/17/01 11:31 AM
EditMeshAttributeDlg.h	3KB	H File	9/17/01 11:31 AM
EditMultipleElementsDlg.cpp	2KB	CPP File	9/17/01 11:31 AM
EditMultipleElementsDlg.h	2KB	H File	9/17/01 11:31 AM
EditNodeDlg.cpp	11KB	CPP File	9/17/01 11:31 AM
EditNodeDlg.h	3KB	H File	9/17/01 11:31 AM
EditNodeDSysystemDlg.cpp	6KB	CPP File	9/17/01 11:31 AM
EditNodeDSysystemDlg.h	3KB	H File	9/17/01 11:31 AM
EditWorkPlaneDlg.cpp	10KB	CPP File	9/17/01 11:31 AM
EditWorkPlaneDlg.h	3KB	H File	9/17/01 11:31 AM
EditWorkPlaneMoveDlg.cpp	11KB	CPP File	9/17/01 11:31 AM
EditWorkPlaneMoveDlg.h	3KB	H File	9/17/01 11:31 AM

320 object(s) 3.31MB (Disk free space: 0 bytes) My Computer

FIG. 37

Exploring -D:\FEM Builder 1.2\Source\FemBuilder

Name	Size	Type	Modified
error.wav	25KB	Wave Sound	8/3/96 1:00 AM
ExecuteAbaqusDlg.cpp	6KB	CPP File	9/17/01 11:31 AM
ExecuteAbaqusDlg.h	3KB	H File	9/17/01 11:31 AM
ExecuteFluentDlg.cpp	8KB	CPP File	9/17/01 11:31 AM
ExecuteFluentDlg.h	3KB	H File	9/17/01 11:31 AM
ExecuteParameterPP.cpp	20KB	CPP File	9/17/01 11:31 AM
ExecuteParameterPP.h	5KB	H File	9/17/01 11:31 AM
Fem.aps	621KB	APS File	9/20/01 10:36 AM
Fem.cpp	16KB	CPP File	9/20/01 11:07 AM
Fem.dsp	30KB	DSP File	9/17/01 11:31 AM
Fem.dsw	2KB	DSW File	9/17/01 11:31 AM
Fem.h	3KB	H File	9/20/01 10:37 AM
Fem.rc	353KB	RC File	9/20/01 11:36 AM
FemDoc.cpp	44KB	CPP File	9/17/01 11:31 AM
FemDoc.h	17KB	H File	9/17/01 11:31 AM
FemDocBlank.cpp	4KB	CPP File	9/17/01 11:31 AM
FemDocCreateBC.cpp	11KB	CPP File	9/17/01 11:31 AM
FemDocDelete.cpp	8KB	CPP File	9/17/01 11:31 AM
FemDocEditBC.cpp	2KB	CPP File	9/17/01 11:31 AM
FemDocFEM.cpp	3KB	CPP File	9/17/01 11:31 AM
FemDocGeometry.cpp	9KB	CPP File	9/17/01 11:31 AM
FemDocInterfaces.cpp	6KB	CPP File	9/17/01 11:31 AM
FemDocList.cpp	10KB	CPP File	9/17/01 11:31 AM

320 object(s) 3.31MB (Disk free space: 0 bytes) My Computer

FIG. 38

**22/48**

**Exploring -D:\FEM Builder 1.2\Source\FemBuilder**

<b>Name</b>	<b>Size</b>	<b>Type</b>	<b>Modified</b>
FemDocMatProp.cpp	6KB	CPP File	9/17/01 11:31 AM
FemDocOrient.cpp	1KB	CPP File	9/17/01 11:31 AM
FemDocPost.cpp	4KB	CPP File	9/17/01 11:31 AM
FemDocTools.cpp	4KB	CPP File	9/17/01 11:31 AM
FemUserMessage.h	1KB	H File	9/17/01 11:31 AM
FemView.cpp	52KB	CPP File	9/21/01 7:06 AM
FemView.h	11KB	H File	9/17/01 11:31 AM
FilterOptionsDlg.cpp	5KB	CPP File	9/17/01 11:31 AM
FilterOptionsDlg.h	2KB	H File	9/17/01 11:31 AM
FlowModelParameters.cpp	17KB	CPP File	9/17/01 11:31 AM
FlowModelParameters.h	5KB	H File	9/17/01 11:31 AM
FractureMechanicsDlg.cpp	4KB	CPP File	9/17/01 11:31 AM
FractureMechanicsDlg.h	2KB	H File	9/17/01 11:31 AM
GPropertySheetFun.cpp	3KB	CPP File	9/17/01 11:31 AM
GPropertySheetFun.h	1KB	H File	9/17/01 11:31 AM
Insert2DFlawDlg.cpp	15KB	CPP File	9/17/01 11:31 AM
Insert2DFlawDlg.h	5KB	H File	9/17/01 11:31 AM
Insert2DFlawEllipseDlg.cpp	8KB	CPP File	9/17/01 11:31 AM
Insert2DFlawEllipseDlg.h	2KB	H File	9/17/01 11:31 AM
Interface.cpp	41KB	CPP File	9/17/01 11:31 AM
Interface.h	3KB	H File	9/17/01 11:31 AM
InterpolateProjectionDlg.cpp	9KB	CPP File	9/17/01 11:31 AM
InterpolateProjectionDlg.h	3KB	H File	9/17/01 11:31 AM

320 object(s)      3.31MB (Disk free space: 0 bytes)      My Computer

**FIG. 39**

**Exploring -D:\FEM Builder 1.2\Source\FemBuilder**

<b>Name</b>	<b>Size</b>	<b>Type</b>	<b>Modified</b>
listFileDialog.cpp	5KB	CPP File	8/3/96 1:00 AM
listFileDialog.h	2KB	H File	9/17/01 11:31 AM
ListResultValuesDlg.cpp	7KB	CPP File	9/17/01 11:31 AM
ListResultValuesDlg.h	3KB	H File	9/17/01 11:31 AM
MainFrm.cpp	17KB	CPP File	9/20/01 10:37 AM
MainFrm.h	3KB	H File	9/17/01 11:31 AM
MaterialPropertyDlg.cpp	20KB	CPP File	9/17/01 11:31 AM
MaterialPropertyDlg.h	5KB	H File	9/20/01 10:36 AM
MeshDlg.cpp	42KB	CPP File	9/20/01 11:07 AM
MeshDlg.h	10KB	H File	9/17/01 11:31 AM
ModelFileNamePP.cpp	12KB	CPP File	9/17/01 11:31 AM
ModelFileNamePP.h	4KB	H File	9/20/01 10:37 AM
ModelInfoDlg.cpp	17KB	CPP File	9/20/01 11:36 AM
ModelInfoDlg.h	6KB	H File	9/17/01 11:31 AM
MoveCopyDlg.cpp	34KB	CPP File	9/17/01 11:31 AM
MoveCopyDlg.h	10KB	H File	9/17/01 11:31 AM
OptionsDlg.cpp	21KB	CPP File	9/18/01 12:26 PM
OptionsDlg.h	9KB	H File	9/17/01 11:31 AM
OrientViewDlg.cpp	6KB	CPP File	9/21/01 7:06 AM
OrientViewDlg.h	4KB	H File	9/17/01 11:31 AM
PostContourDlg.cpp	17KB	CPP File	9/17/01 11:31 AM
PostContourDlg.h	4KB	H File	9/17/01 11:31 AM
PostDeformedDlg.cpp	13KB	CPP File	9/17/01 11:31 AM

320 object(s)      3.31MB (Disk free space: 0 bytes)      My Computer

**FIG. 40**

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.1US

23/48

Exploring -D:\FEM Builder 1.2\Source\FemBuilder

Name	Size	Type	Modified
PostDeformedDlg.h	3KB	H File	9/17/01 11:31 AM
PostDlg.cpp	33KB	CPP File	9/21/01 7:06 AM
PostDlg.h	11KB	H File	9/17/01 11:31 AM
PostVectorDlg.cpp	17KB	CPP File	9/17/01 11:31 AM
PostVectorDlg.h	4KB	H File	9/17/01 11:31 AM
PostView.cpp	15KB	CPP File	9/21/01 7:06 AM
PostView.h	4KB	H File	9/17/01 11:31 AM
PostXYAnalysisResultDlg.cpp	30KB	CPP File	9/17/01 11:31 AM
PostXYAnalysisResultDlg.h	7KB	H File	9/17/01 11:31 AM
PostXYPlotParmDlg.cpp	35KB	CPP File	9/17/01 11:31 AM
PostXYPlotParmDlg.h	9KB	H File	9/17/01 11:31 AM
PostXYPlotViewDlg.cpp	2KB	CPP File	9/17/01 11:31 AM
PostXYPlotViewDlg.h	2KB	H File	9/17/01 11:31 AM
PostXYTimeHistoryDlg.cpp	21KB	CPP File	9/17/01 11:31 AM
PostXYTimeHistoryDlg.h	4KB	H File	9/17/01 11:31 AM
ReadAbaqusDlg.cpp	3KB	CPP File	9/17/01 11:31 AM
ReadAbaqusDlg.h	2KB	H File	9/17/01 11:31 AM
ReadAnsysDlg.cpp	3KB	CPP File	9/17/01 11:31 AM
ReadAnsysDlg.h	2KB	H File	9/17/01 11:31 AM
ReadAscharDlg.cpp	4KB	CPP File	9/17/01 11:31 AM
ReadAscharDlg.h	3KB	H File	9/17/01 11:31 AM
ReadCCMDlg.cpp	4KB	CPP File	9/17/01 11:31 AM
ReadCMMMDlg.h	3KB	H File	9/17/01 11:31 AM

320 object(s) 3.31MB (Disk free space: 0 bytes) My Computer

FIG. 41

Exploring -D:\FEM Builder 1.2\Source\FemBuilder

Name	Size	Type	Modified
ReadCDCADlg.cpp	4KB	CPP File	9/17/01 11:31 AM
ReadCDCADlg.h	3KB	H File	9/17/01 11:31 AM
ReadFluentDlg.cpp	3KB	CPP File	9/17/01 11:31 AM
ReadFluentDlg.h	2KB	H File	9/17/01 11:31 AM
ReadGridGenDlg.cpp	3KB	CPP File	9/17/01 11:31 AM
ReadGridGenDlg.h	2KB	H File	9/17/01 11:31 AM
ReadIdeasMsDlg.cpp	3KB	CPP File	9/17/01 11:31 AM
ReadIdeasMsDlg.h	2KB	H File	9/17/01 11:31 AM
ReadPatranDlg.cpp	8KB	CPP File	9/17/01 11:32 AM
ReadPatranDlg.h	3KB	H File	9/17/01 11:32 AM
ReadRecessDlg.cpp	3KB	CPP File	9/17/01 11:32 AM
ReadRecessDlg.h	2KB	H File	9/17/01 11:32 AM
ReadSharpDlg.cpp	3KB	CPP File	9/17/01 11:32 AM
ReadSharpDlg.h	2KB	H File	9/17/01 11:32 AM
ReadSindaDlg.cpp	3KB	CPP File	9/17/01 11:32 AM
ReadSindaDlg.h	2KB	H File	9/17/01 11:32 AM
ReadSinGenDlg.cpp	3KB	CPP File	9/17/01 11:32 AM
ReadSinGenDlg.h	2KB	H File	9/17/01 11:32 AM
ReadTexChemDlg.cpp	3KB	CPP File	9/17/01 11:32 AM
ReadTexChemDlg.h	2KB	H File	9/17/01 11:32 AM
RefineMeshAdaptiveDlg.cpp	19KB	CPP File	9/20/01 10:38 AM
RefineMeshAdaptiveDlg.h	5KB	H File	9/17/01 11:32 AM
RefineMeshSpecifiedDlg.cpp	8KB	CPP File	9/17/01 11:32 AM

320 object(s) 3.31MB (Disk free space: 0 bytes) My Computer

FIG. 42

24/48

Exploring -D:\FEM Builder 1.2\Source\FemBuilder

Name	Size	Type	Modified
RefineMeshSpecifiedDlg.h	3KB	H File	9/17/01 11:32 AM
resource.fd	56KB	FD File	9/20/01 10:36 AM
resource.h	39KB	H File	9/20/01 10:36 AM
ResultInterpolationDlg.cpp	13KB	CPP File	9/17/01 11:32 AM
ResultInterpolationDlg.h	5KB	H File	9/17/01 11:32 AM
ResultSuperpositonDlg.cpp	6KB	CPP File	9/17/01 11:32 AM
ResultSuperpositonDlg.h	3KB	H File	9/17/01 11:32 AM
SaveViewOrientationDlg.cpp	2KB	CPP File	9/17/01 11:32 AM
SaveViewOrientationDlg.h	2KB	H File	9/17/01 11:32 AM
SelectBCDlg.cpp	9KB	CPP File	9/17/01 11:32 AM
SelectBCDlg.h	3KB	H File	9/17/01 11:32 AM
SelectBCSetsDlg.cpp	3KB	CPP File	9/17/01 11:32 AM
SelectBCSetsDlg.h	2KB	H File	9/17/01 11:32 AM
SelectCurveDlg.cpp	9KB	CPP File	9/17/01 11:32 AM
SelectCurveDlg.h	3KB	H File	9/17/01 11:32 AM
SelectDlg.cpp	9KB	CPP File	9/17/01 11:32 AM
SelectDlg.h	5KB	H File	9/17/01 11:32 AM
SelectElementDlg.cpp	13KB	CPP File	9/17/01 11:32 AM
SelectElementDlg.h	3KB	H File	9/17/01 11:32 AM
SelectFaceDlg.cpp	8KB	CPP File	9/17/01 11:32 AM
SelectFaceDlg.h	2KB	H File	9/17/01 11:32 AM
SelectGroupDlg.cpp	8KB	CPP File	9/17/01 11:32 AM
SelectGroupDlg.h	3KB	H File	9/17/01 11:32 AM

320 object(s) 3.31MB (Disk free space: 0 bytes) My Computer

FIG. 43

Exploring -D:\FEM Builder 1.2\Source\FemBuilder

Name	Size	Type	Modified
SelectMaterialDlg.cpp	8KB	CPP File	9/17/01 11:32 AM
SelectMaterialDlg.h	3KB	H File	9/17/01 11:32 AM
SelectMaterialDlg.cpp	3KB	CPP File	9/17/01 11:32 AM
SelectMaterialDlg.h	2KB	H File	9/17/01 11:32 AM
SelectModelDlg.cpp	3KB	CPP File	9/17/01 11:32 AM
SelectModelDlg.h	2KB	H File	9/17/01 11:32 AM
SelectNodeDlg.cpp	13KB	CPP File	9/17/01 11:32 AM
SelectNodeDlg.h	3KB	H File	9/17/01 11:32 AM
SelectPointDlg.cpp	9KB	CPP File	9/17/01 11:32 AM
SelectPointDlg.h	3KB	H File	9/17/01 11:32 AM
SelectReactionsDlg.cpp	4KB	CPP File	9/17/01 11:32 AM
SelectReactionsDlg.h	2KB	H File	9/17/01 11:32 AM
SelectResultDlg.cpp	16KB	CPP File	9/17/01 11:32 AM
SelectResultDlg.h	4KB	H File	9/17/01 11:32 AM
SelectSpeciesDlg.cpp	4KB	CPP File	9/17/01 11:32 AM
SelectSpeciesDlg.h	2KB	H File	9/17/01 11:32 AM
SelectSurfaceByTypeDlg.cpp	3KB	CPP File	9/17/01 11:32 AM
SelectSurfaceByTypeDlg.h	2KB	H File	9/17/01 11:32 AM
SelectSurfaceDlg.cpp	10KB	CPP File	9/17/01 11:32 AM
SelectSurfaceDlg.h	3KB	H File	9/17/01 11:32 AM
SelectSystemDlg.cpp	6KB	CPP File	9/17/01 11:32 AM
SelectSystemDlg.h	2KB	H File	9/17/01 11:32 AM
SelectVolumeDlg.cpp	9KB	CPP File	9/17/01 11:32 AM

320 object(s) 3.31MB (Disk free space: 0 bytes) My Computer

FIG. 44

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.IUS

25/48

Exploring -D:\FEM Builder 1.2\Source\FemBuilder

Name	Size	Type	Modified
SelectVolumeDlg.h	3KB	H File	9/17/01 11:32 AM
SmoothMeshDlg.cpp	7KB	CPP File	9/17/01 11:32 AM
SmoothMeshDlg.h	3KB	H File	9/17/01 11:32 AM
SplashWnd.cpp	4KB	CPP File	9/17/01 11:32 AM
SplashWnd.h	2KB	H File	9/17/01 11:32 AM
Splash16.bmp	81KB	Bitmap Image	9/17/01 11:32 AM
StdAfx.cpp	1KB	CPP File	9/17/01 11:32 AM
StdAfx.h	2KB	H File	9/17/01 11:32 AM
SubModelDlg.cpp	11KB	CPP File	9/17/01 11:32 AM
SubModelDlg.h	4KB	H File	9/17/01 11:32 AM
SweepDlg.cpp	8KB	CPP File	9/17/01 11:32 AM
SweepDlg.h	3KB	H File	9/17/01 11:32 AM
ThermalAblationDlg.cpp	12KB	CPP File	9/17/01 11:32 AM
ThermalAblationDlg.h	4KB	H File	9/17/01 11:32 AM
TranslateDlg.cpp	2KB	CPP File	9/17/01 11:32 AM
TranslateDlg.h	2KB	H File	9/17/01 11:32 AM
UnitSystemPP.cpp	6KB	CPP File	9/17/01 11:32 AM
UnitSystemPP.h	2KB	H File	9/17/01 11:32 AM
WriteAbaqusDlg.cpp	18KB	CPP File	9/17/01 11:32 AM
WriteAbaqusDlg.h	7KB	H File	9/17/01 11:32 AM
WriteAnsysDlg.cpp	2KB	CPP File	9/17/01 11:32 AM
WriteAnsysDlg.h	2KB	H File	9/17/01 11:32 AM
WriteCCMDlg.cpp	8KB	CPP File	9/17/01 3:00 PM

320 object(s) 3.31MB (Disk free space: 0 bytes) My Computer

FIG. 45

Exploring -D:\FEM Builder 1.2\Source\FemBuilder

Name	Size	Type	Modified
WriteAnsysDlg.cpp	2KB	CPP File	9/17/01 11:32 AM
WriteAnsysDlg.h	2KB	H File	9/17/01 11:32 AM
WriteCCMDlg.cpp	8KB	CPP File	9/17/01 3:00 PM
WriteCCMDlg.h	3KB	H File	9/17/01 11:32 AM
WriteCDCADlg.cpp	8KB	CPP File	9/17/01 3:00 PM
WriteCDCADlg.h	3KB	H File	9/17/01 11:32 AM
WriteFluentDlg.cpp	22KB	CPP File	9/17/01 11:32 AM
WriteFluentDlg.h	9KB	H File	9/17/01 11:32 AM
WriteldeasMSDlg.cpp	7KB	CPP File	9/17/01 11:32 AM
WriteldeasMSDlg.h	3KB	H File	9/17/01 11:32 AM
WritePatranDlg.cpp	6KB	CPP File	9/17/01 11:32 AM
WritePatranDlg.h	3KB	H File	9/17/01 11:32 AM
WriteRecessDlg.cpp	26KB	CPP File	9/17/01 11:32 AM
WriteRecessDlg.h	7KB	H File	9/17/01 11:32 AM
WriteSindaDlg.cpp	14KB	CPP File	9/17/01 11:32 AM
WriteSindaDlg.h	6KB	H File	9/17/01 11:32 AM
WriteTexChem.cpp	7KB	CPP File	9/17/01 11:32 AM
WriteTexChem.h	4KB	H File	9/17/01 11:32 AM
XYPlotParmDlg.cpp	40KB	CPP File	9/21/01 7:06 AM
XYPlotParmDlg.h	9KB	H File	9/17/01 11:32 AM
XYPlotView.cpp	48KB	CPP File	9/21/01 7:06 AM
XYPlotView.h	8KB	H File	9/17/01 11:32 AM

320 object(s) 3.31MB (Disk free space: 0 bytes) My Computer

FIG. 46

**TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS**

Inventor: Iverson et al.  
Serial No.: 10/005,752  
Docket No.: 2507-5744.1US

26/48

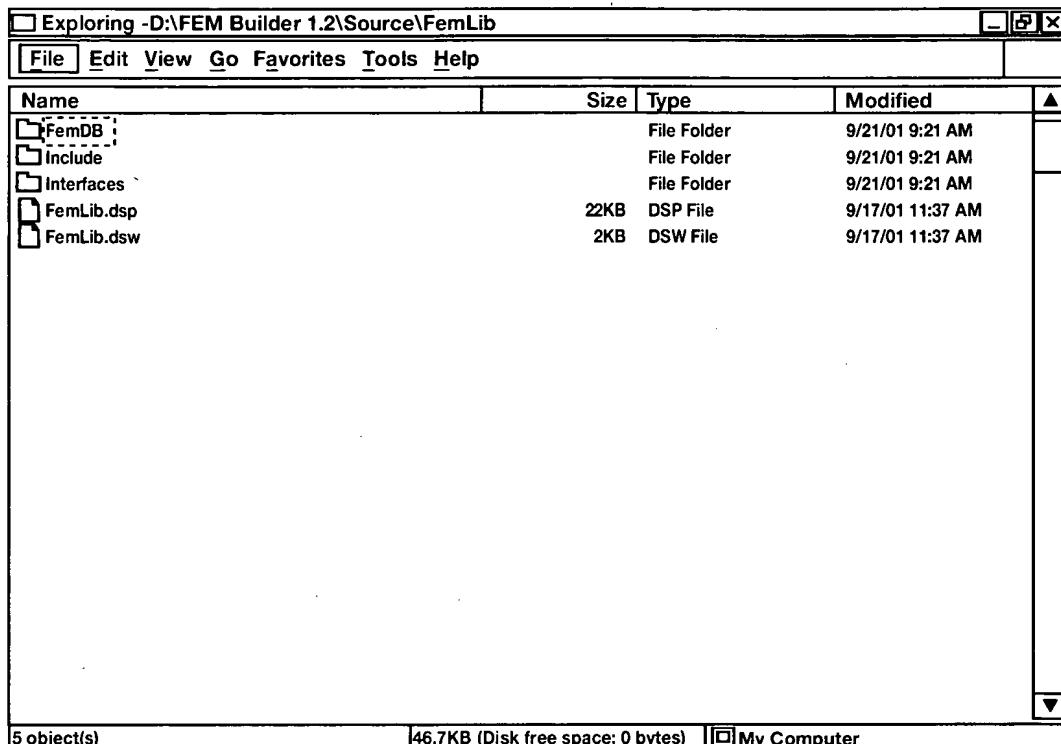
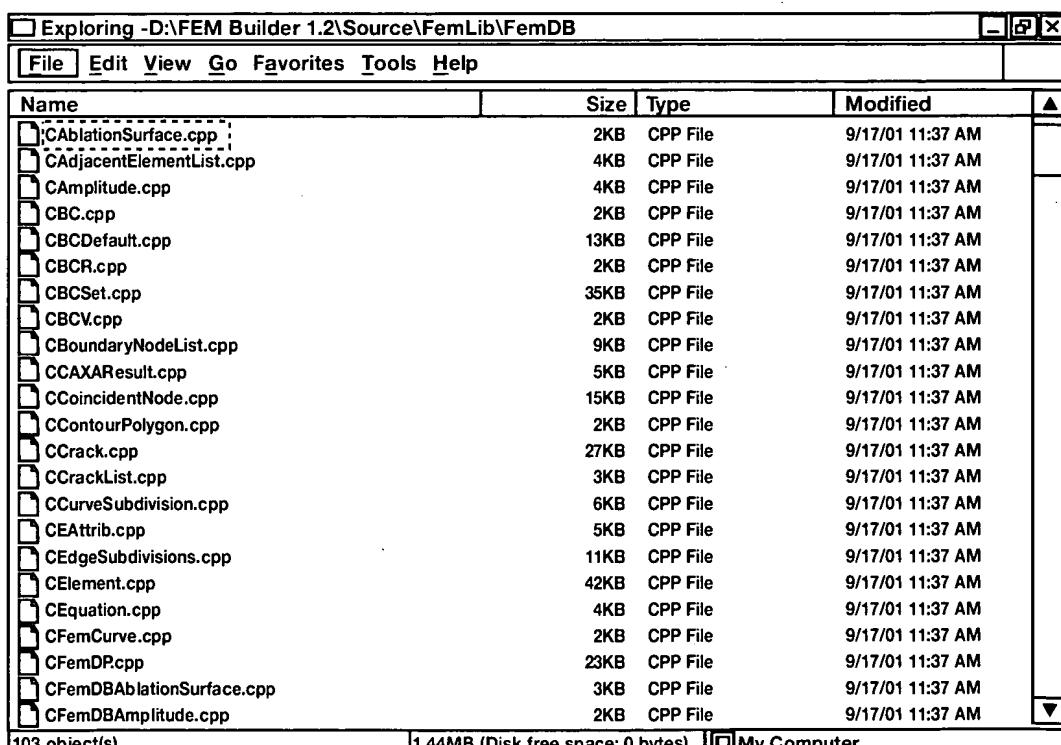


FIG. 47



**FIG. 48**

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.1US

27/48

Exploring -D:\FEM Builder 1.2\Source\FemLib\FemDB

Name	Size	Type	Modified
CFemDBBC.cpp	28KB	CPP File	9/17/01 11:37 AM
CFemDBBCDefaults.cpp	3KB	CPP File	9/17/01 11:37 AM
CFemDBConventions.cpp	8KB	CPP File	9/17/01 11:37 AM
CFemDBResult.cpp	3KB	CPP File	9/17/01 11:37 AM
CFemDBCurve.cpp	21KB	CPP File	9/17/01 11:37 AM
CFemDBElement.cpp	17KB	CPP File	9/17/01 11:37 AM
CFemDBElementOrient.cpp	9KB	CPP File	9/17/01 11:37 AM
CFemDBEquation.cpp	17KB	CPP File	9/17/01 11:37 AM
CFemDBEResult.cpp	3KB	CPP File	9/17/01 11:37 AM
CFemDBGroup.cpp	9KB	CPP File	9/17/01 11:37 AM
CFemDBInitialConditions.cpp	4KB	CPP File	9/17/01 11:37 AM
CFemDBMaterial.cpp	7KB	CPP File	9/17/01 11:37 AM
CFemDBMatID.cpp	11KB	CPP File	9/17/01 11:37 AM
CFemDBMesh.cpp	10KB	CPP File	9/17/01 11:37 AM
CFemDBNode.cpp	6KB	CPP File	9/17/01 11:37 AM
CFemDBNResult.cpp	3KB	CPP File	9/17/01 11:37 AM
CFemDBP_rp.cpp	6KB	CPP File	9/17/01 11:37 AM
CFemDBPt.cpp	4KB	CPP File	9/17/01 11:37 AM
CFemDBResult.cpp	41KB	CPP File	9/17/01 11:37 AM
CFemDBSelect.cpp	62KB	CPP File	9/17/01 11:37 AM
CFemDBSet.cpp	9KB	CPP File	9/17/01 11:37 AM
CFemDBSubset.cpp	2KB	CPP File	9/17/01 11:37 AM
CFemDBSurface.cpp	26KB	CPP File	9/17/01 11:37 AM

103 object(s) 1.44KB (Disk free space: 0 bytes) My Computer

FIG. 49

Exploring -D:\FEM Builder 1.2\Source\FemLib\FemDB

Name	Size	Type	Modified
CFemDBSystem.cpp	7KB	CPP File	9/17/01 11:37 AM
CFemDBVolume.cpp	14KB	CPP File	9/17/01 11:37 AM
CFemDO.cpp	6KB	CPP File	9/17/01 11:37 AM
CFemGeometry.cpp	2KB	CPP File	9/17/01 11:37 AM
CFemOptions.cpp	3KB	CPP File	9/17/01 11:37 AM
CFlowModel.cpp	9KB	CPP File	9/17/01 11:37 AM
CFractureCCI.cpp	6KB	CPP File	9/17/01 11:37 AM
CFractureCOD.cpp	7KB	CPP File	9/17/01 11:37 AM
CFractureJIntegral.cpp	21KB	CPP File	9/17/01 11:37 AM
CFractureJIntegralDPEnergyE.cpp	2KB	CPP File	9/17/01 11:37 AM
CFractureJIntegralDPEnergyI.cpp	4KB	CPP File	9/17/01 11:37 AM
CFractureMechanics.cpp	2KB	CPP File	9/17/01 11:37 AM
CGPDistortionCheck.cpp	2KB	CPP File	9/17/01 11:37 AM
CGroup.cpp	7KB	CPP File	9/17/01 11:37 AM
CInsert2DFlaw.cpp	41KB	CPP File	9/17/01 11:37 AM
ClentropicFlow.cpp	4KB	CPP File	9/17/01 11:37 AM
CMesh.cpp	2KB	CPP File	9/17/01 11:37 AM
CMesh2D.cpp	24KB	CPP File	9/17/01 11:37 AM
CMesh3D.cpp	34KB	CPP File	9/17/01 11:37 AM
CMeshAttribute.cpp	3KB	CPP File	9/17/01 11:37 AM
CMeshElement2D.cpp	13KB	CPP File	9/17/01 11:37 AM
CMeshMapped2D.cpp	57KB	CPP File	9/17/01 11:37 AM
CMeshMapped3D.cpp	17KB	CPP File	9/17/01 11:37 AM

103 object(s) 1.44MB (Disk free space: 0 bytes) My Computer

FIG. 50

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.IUS

28/48

Exploring -D:\FEM Builder 1.2\Source\FemLib\FemDB

Name	Size	Type	Modified
CMeshSmooth.cpp	8KB	CPP File	9/17/01 11:37 AM
CMeshTrans3D.cpp	17KB	CPP File	9/17/01 11:37 AM
CMoveCopy.cpp	55KB	CPP File	9/17/01 11:37 AM
CNode.cpp	4KB	CPP File	9/17/01 11:37 AM
COrient.cpp	2KB	CPP File	9/17/01 11:37 AM
CPt.cpp	2KB	CPP File	9/17/01 11:37 AM
CQuadrant.cpp	19KB	CPP File	9/17/01 11:37 AM
CRefineMesh.cpp	87KB	CPP File	9/17/01 11:37 AM
CResult.cpp	43KB	CPP File	9/17/01 11:37 AM
CSindaAttrib.cpp	6KB	CPP File	9/17/01 11:37 AM
CSindaNetwork.cpp	37KB	CPP File	9/17/01 11:37 AM
CSubModel.cpp	15KB	CPP File	9/17/01 11:37 AM
CSweepModel.cpp	27KB	CPP File	9/17/01 11:37 AM
CThermalAblation.cpp	32KB	CPP File	9/17/01 11:37 AM
DrawFem.cpp	25KB	CPP File	9/17/01 11:37 AM
FemEntityType.cpp	9KB	CPP File	9/17/01 11:37 AM
GElementContour.cpp	29KB	CPP File	9/17/01 11:37 AM
GElementDistortion.cpp	9KB	CPP File	9/17/01 11:37 AM
GElementFun.cpp	16KB	CPP File	9/17/01 11:37 AM
GElementGInt.cpp	17KB	CPP File	9/17/01 11:37 AM
GElementInfo.cpp	42KB	CPP File	9/17/01 11:37 AM
GElementNCIP.cpp	27KB	CPP File	9/17/01 11:37 AM
GElementNCPP.cpp	10KB	CPP File	9/17/01 11:37 AM

103 object(s) 1.44KB (Disk free space: 0 bytes) My Computer

FIG. 51

Exploring -D:\FEM Builder 1.2\Source\FemLib\FemDB

Name	Size	Type	Modified
CSweepModel.cpp	27KB	CPP File	9/17/01 11:37 AM
CThermalAblation.cpp	32KB	CPP File	9/17/01 11:37 AM
DrawFem.cpp	25KB	CPP File	9/17/01 11:37 AM
FemEntityType.cpp	9KB	CPP File	9/17/01 11:37 AM
GElementContour.cpp	29KB	CPP File	9/17/01 11:37 AM
GElementDistortion.cpp	9KB	CPP File	9/17/01 11:37 AM
GElementFun.cpp	16KB	CPP File	9/17/01 11:37 AM
GElementGInt.cpp	17KB	CPP File	9/17/01 11:37 AM
GElementInfo.cpp	42KB	CPP File	9/17/01 11:37 AM
GElementNCIP.cpp	27KB	CPP File	9/17/01 11:37 AM
GElementNCPP.cpp	10KB	CPP File	9/17/01 11:37 AM
GElementNCVI.cpp	13KB	CPP File	9/17/01 11:37 AM
GElementOrient.cpp	3KB	CPP File	9/17/01 11:37 AM
GElementSF.cpp	17KB	CPP File	9/17/01 11:37 AM
GElementSFD.cpp	33KB	CPP File	9/17/01 11:37 AM
GElementSFDD.cpp	51KB	CPP File	9/17/01 11:37 AM
GMeshFun.cpp	8KB	CPP File	9/17/01 11:37 AM
GPointFun.cpp	2KB	CPP File	9/17/01 11:37 AM
GRdAnsysRes.cpp	13KB	CPP File	9/17/01 11:37 AM
GSindaFun.cpp	2KB	CPP File	9/17/01 11:37 AM
ResultInterpolation.cpp	23KB	CPP File	9/17/01 11:37 AM
ResultSuperposition.cpp	10KB	CPP File	9/17/01 11:37 AM

103 object(s) 1.44MB (Disk free space: 0 bytes) My Computer

FIG. 52

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.1US

29/48

Exploring -D:\FEM Builder 1.2\Source\FemLib\Include

Name	Size	Type	Modified
CAblationSurface.h	2KB	H File	9/17/01 11:37 AM
CAdjacentElementList.h	2KB	H File	9/17/01 11:37 AM
CAmplitdue.h	2KB	H File	9/17/01 11:37 AM
CBC.h	3KB	H File	9/17/01 11:37 AM
CBCDefault.h	9KB	H File	9/17/01 11:37 AM
CBCCR.h	2KB	H File	9/17/01 11:37 AM
CBCSet.h	6KB	H File	9/17/01 11:37 AM
CBCV.h	1KB	H File	9/17/01 11:37 AM
CBoundaryNodeList.h	3KB	H File	9/17/01 11:37 AM
CCAXAResult.h	3KB	H File	9/17/01 11:37 AM
CCoincidentNode.h	3KB	H File	9/17/01 11:37 AM
CContourPolygon.h	2KB	H File	9/17/01 11:37 AM
CCrack.h	6KB	H File	9/17/01 11:37 AM
CCrackList.h	2KB	H File	9/17/01 11:37 AM
CCurveSubdivision.h	3KB	H File	9/17/01 11:37 AM
CEAttrib.h	2KB	H File	9/17/01 11:37 AM
CEdgeSubdivision.h	3KB	H File	9/17/01 11:37 AM
CElement.h	15KB	H File	9/17/01 11:37 AM
CEquation.h	3KB	H File	9/17/01 11:37 AM
CFemCurve.h	2KB	H File	9/17/01 11:37 AM
CFemDB.h	39KB	H File	9/17/01 11:37 AM
CFemDBSet.h	2KB	H File	9/17/01 11:37 AM
CFemDO.h	3KB	H File	9/17/01 11:37 AM

113 object(s) 351 KB (Disk free space: 0 bytes) My Computer

FIG. 53

Exploring -D:\FEM Builder 1.2\Source\FemLib\Include

Name	Size	Type	Modified
CFemGeometry.h	3KB	H File	9/17/01 11:37 AM
CFemOptions.h	3KB	H File	9/17/01 11:37 AM
CFlowModel.h	4KB	H File	9/17/01 11:37 AM
CFractureCCI.h	2KB	H File	9/17/01 11:37 AM
CFractureCOD.h	2KB	H File	9/17/01 11:37 AM
CFractureJIntegral.h	4KB	H File	9/17/01 11:37 AM
CFractureJIntegralDPEnergyE.h	1KB	H File	9/17/01 11:37 AM
CFractureJIntegralDPEnergy.h	3KB	H File	9/17/01 11:37 AM
CFractureMechanics.h	1KB	H File	9/17/01 11:37 AM
CGPDistortionCheck.h	1KB	H File	9/17/01 11:37 AM
CGroup.h	4KB	H File	9/17/01 11:37 AM
CInsert2DFlaw.h	5KB	H File	9/17/01 11:37 AM
CIsotropicFlow.h	2KB	H File	9/17/01 11:37 AM
CMesh.h	3KB	H File	9/17/01 11:37 AM
CMesh2D.h	4KB	H File	9/17/01 11:37 AM
CMesh3D.h	5KB	H File	9/17/01 11:37 AM
CMeshAttribute.h	3KB	H File	9/17/01 11:37 AM
CMeshElement2D.h	4KB	H File	9/17/01 11:37 AM
CMeshMapped2D.h	7KB	H File	9/17/01 11:37 AM
CMeshMapped3D.h	4KB	H File	9/17/01 11:37 AM
CMeshSmooth.h	3KB	H File	9/17/01 11:37 AM
CMeshSubdivision.h	4KB	H File	9/17/01 11:37 AM
CMeshTrans3D.h	5KB	H File	9/17/01 11:37 AM

113 object(s) 351 KB (Disk free space: 0 bytes) My Computer

FIG. 54

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.IUS

**30/48**

**Exploring -D:\FEM Builder 1.2\Source\FemLib\Include**

Name	Size	Type	Modified
CMoveCopy.h	5KB	H File	9/17/01 11:37 AM
CNode.h	2KB	H File	9/17/01 11:37 AM
COrient.h	2KB	H File	9/17/01 11:37 AM
CQuadrant.h	5KB	H File	9/17/01 11:37 AM
CRdCrackCombustionData.h	2KB	H File	9/17/01 11:37 AM
CRefineMesh.h	7KB	H File	9/17/01 11:37 AM
CResult.h	11KB	H File	9/17/01 11:37 AM
CSindaAttrib.h	2KB	H File	9/17/01 11:37 AM
CSindaNetwork.h	7KB	H File	9/17/01 11:37 AM
CSubModel.h	2KB	H File	9/17/01 11:37 AM
CSweepModel.h	3KB	H File	9/17/01 11:37 AM
CThermalAblation.h	3KB	H File	9/17/01 11:37 AM
CWrCrackCombustionData.h	2KB	H File	9/17/01 11:37 AM
CWrSindaData.h	3KB	H File	9/17/01 11:37 AM
FemEntityType.h	6KB	H File	9/17/01 11:37 AM
FemStdIn.h	2KB	H File	9/17/01 11:37 AM
GElementContour.h	3KB	H File	9/17/01 11:37 AM
GElementDistortion.h	2KB	H File	9/17/01 11:37 AM
GElementFun.h	3KB	H File	9/17/01 11:37 AM
GElementGInt.h	4KB	H File	9/17/01 11:37 AM
GElementInfo.h	3KB	H File	9/17/01 11:37 AM
GElementNCPH	3KB	H File	9/17/01 11:37 AM
GElementNCPPh	2KB	H File	9/17/01 11:38 AM

113 object(s)      351 KB (Disk free space: 0 bytes)      My Computer

**FIG. 55**

**Exploring -D:\FEM Builder 1.2\Source\FemLib\Include**

Name	Size	Type	Modified
CElementNCVI.h	2KB	H File	9/17/01 11:38 AM
GElementOrient.h	1KB	H File	9/17/01 11:38 AM
GElementSE.h	2KB	H File	9/17/01 11:38 AM
GElementSFD.h	3KB	H File	9/17/01 11:38 AM
GElementSFDD.h	4KB	H File	9/17/01 11:38 AM
GMeshFun.h	1KB	H File	9/17/01 11:38 AM
GPointFun.h	1KB	H File	9/17/01 11:38 AM
GRdAnsysRes.h	3KB	H File	9/17/01 11:38 AM
GSindaFun.h	1KB	H File	9/17/01 11:38 AM
RdAbaqus.h	6KB	H File	9/17/01 11:38 AM
RdAbaqusFIF.h	1KB	H File	9/17/01 11:38 AM
RdAbaqusFOF.h	2KB	H File	9/17/01 11:38 AM
RdAbaqusInput.h	3KB	H File	9/17/01 11:38 AM
RdAnsysCDB.h	6KB	H File	9/17/01 11:38 AM
RdAnsysRes.h	4KB	H File	9/17/01 11:38 AM
RdAschar.h	5KB	H File	9/17/01 11:38 AM
RdCCM.h	2KB	H File	9/17/01 11:38 AM
RdCDCA.h	2KB	H File	9/17/01 11:38 AM
RdFemDB.h	2KB	H File	9/17/01 11:38 AM
RdFluent.h	5KB	H File	9/17/01 11:38 AM
RdFluentJ10.h	3KB	H File	9/17/01 11:38 AM
RdGridGen.h	2KB	H File	9/17/01 11:38 AM

113 object(s)      351 KB (Disk free space: 0 bytes)      My Computer

**FIG. 56**

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.1US

31/48

**Exploring -D:\FEM Builder 1.2\Source\FemLib\Include**

<b>Name</b>	<b>Size</b>	<b>Type</b>	<b>Modified</b>
RdIdeaMS.h	4KB	H File	9/17/01 11:38 AM
RdPatran.h	3KB	H File	9/17/01 11:38 AM
RdRecess.h	3KB	H File	9/17/01 11:38 AM
RdSharp.h	3KB	H File	9/17/01 11:38 AM
RdSinda.h	1KB	H File	9/17/01 11:38 AM
RdSinGen.h	1KB	H File	9/17/01 11:38 AM
RdTexChem.h	2KB	H File	9/17/01 11:38 AM
RWAbaqus.h	1KB	H File	9/17/01 11:38 AM
RWAnsys.h	2KB	H File	9/17/01 11:38 AM
RWideasMS.h	2KB	H File	9/17/01 11:38 AM
WrAbaqus.h	6KB	H File	9/17/01 11:38 AM
WrAnsysCDB.h	3KB	H File	9/17/01 11:38 AM
WrCCM.h	2KB	H File	9/17/01 11:38 AM
WrCDCA.h	3KB	H File	9/17/01 11:38 AM
WrFemDB.h	2KB	H File	9/17/01 11:38 AM
WrFluent.h	8KB	H File	9/17/01 11:38 AM
WrIdeaMS.h	4KB	H File	9/17/01 11:38 AM
WrPatran.h	3KB	H File	9/17/01 11:38 AM
WrPatranRes.h	2KB	H File	9/17/01 11:38 AM
WrRecess.h	5KB	H File	9/17/01 11:38 AM
WrSinda.h	2KB	H File	9/17/01 11:38 AM
WrTexChem.h	3KB	H File	9/17/01 11:38 AM

113 object(s)      351 KB (Disk free space: 0 bytes)      My Computer

**FIG. 57**

**Exploring -D:\FEM Builder 1.2\Source\FemLib\Interfaces**

<b>Name</b>	<b>Size</b>	<b>Type</b>	<b>Modified</b>
CRdCrackCombustionData.cpp	4KB	CPP File	9/17/01 11:38 AM
CWCrackCombustionData.cpp	2KB	CPP File	9/17/01 11:38 AM
RdAbaqus.cpp	38KB	CPP File	9/17/01 11:38 AM
RdAbaqusFIF.cpp	2KB	CPP File	9/17/01 11:38 AM
GElementSFOF.h	6KB	CPP File	9/17/01 11:38 AM
RdAbaqusInput.cpp	45KB	CPP File	9/17/01 11:38 AM
RdAnsysCDB.cpp	64KB	CPP File	9/17/01 11:38 AM
RdAnsysRes.cpp	35KB	CPP File	9/17/01 11:38 AM
RdAschar.cpp	21KB	CPP File	9/17/01 11:38 AM
RdCCM.cpp	4KB	CPP File	9/17/01 11:38 AM
RdDCDCA.cpp	4KB	CPP File	9/17/01 11:38 AM
RdFemDB.cpp	43KB	CPP File	9/17/01 11:38 AM
RdFluent.cpp	46KB	CPP File	9/17/01 11:38 AM
RdFluentJ10.cpp	23KB	CPP File	9/17/01 11:38 AM
RdGridGen.cpp	6KB	CPP File	9/17/01 11:38 AM
RdIdeaMS.cpp	49KB	CPP File	9/17/01 11:38 AM
RdIdeaMSMaterial.cpp	27KB	CPP File	9/17/01 11:38 AM
RdPatran.cpp	29KB	CPP File	9/17/01 11:38 AM
RdRecess.cpp	37KB	CPP File	9/17/01 11:38 AM
RdSharp.h	27KB	CPP File	9/17/01 11:38 AM
RdSinda.cpp	5KB	CPP File	9/17/01 11:38 AM
RdSinGen.cpp	4KB	CPP File	9/17/01 11:38 AM
RdTexChem.cpp	15KB	CPP File	9/17/01 11:38 AM

38 object(s)      936 KB (Disk free space: 0 bytes)      My Computer

**FIG. 58**

**32/48**

**Exploring -D:\FEM Builder 1.2\Source\FemLib\Interfaces**

<b>Name</b>	<b>Size</b>	<b>Type</b>	<b>Modified</b>
RdIdeasMSMaterial.cpp	27KB	CPP File	9/17/01 11:38 AM
RdPatran.h	29KB	CPP File	9/17/01 11:38 AM
RdRecess.cpp	37KB	CPP File	9/17/01 11:38 AM
RdSharp.cpp	27KB	CPP File	9/17/01 11:38 AM
RdSinda.cpp	5KB	CPP File	9/17/01 11:38 AM
RdSinGen.cpp	4KB	CPP File	9/17/01 11:38 AM
RdTexChem.cpp	15KB	CPP File	9/17/01 11:38 AM
RWAbaqus.cpp	10KB	CPP File	9/17/01 11:38 AM
RWAnsyst.cpp	20KB	CPP File	9/17/01 11:38 AM
RWIdeasMS.cpp	19KB	CPP File	9/17/01 11:38 AM
WrAbaqus.cpp	36KB	CPP File	9/17/01 11:38 AM
WrAnsystCDB.h	34KB	CPP File	9/17/01 11:38 AM
WrCCM.cpp	6KB	CPP File	9/17/01 11:38 AM
WrCDCA.cpp	12KB	CPP File	9/17/01 11:38 AM
WrFemDB.cpp	37KB	CPP File	9/17/01 11:38 AM
WrFluent.cpp	65KB	CPP File	9/17/01 11:38 AM
WrIdeasMS.cpp	44KB	CPP File	9/17/01 11:38 AM
WrIdeasMSMaterial.cpp	27KB	CPP File	9/17/01 11:38 AM
WrPatran.cpp	33KB	CPP File	9/17/01 11:38 AM
WrRecess.cpp	35KB	CPP File	9/17/01 11:38 AM
WrSinda.cpp	19KB	CPP File	9/17/01 11:38 AM
WrTexChem.cpp	22KB	CPP File	9/17/01 11:38 AM

38 object(s)      936 KB (Disk free space: 0 bytes)       My Computer

**FIG. 59**

**Exploring -D:\FEM Builder 1.2\Source\Fem\FemPython**

<b>Name</b>	<b>Size</b>	<b>Type</b>	<b>Modified</b>
FEDoc.cpp	1KB	CPP File	9/17/01 11:38 AM
FEDoc.h	1KB	H File	9/17/01 11:38 AM
FEM.cpp	6KB	CPP File	9/17/01 11:38 AM
FEM_ExtractFileNames.hpp	4KB	CPP File	9/17/01 11:38 AM
FEM_FEDoc.hpp	6KB	HPP File	9/17/01 11:38 AM
FEM_FEModel.hpp	31KB	HPP File	9/17/01 11:38 AM
FEM_FEModelBC.hpp	32KB	HPP File	9/17/01 11:38 AM
FEM_FEModelColor.hpp	2KB	HPP File	9/17/01 11:38 AM
FEM_FEModelCurve.hpp	17KB	HPP File	9/17/01 11:38 AM
FEM_FEModelDelete.hpp	3KB	HPP File	9/17/01 11:38 AM
FEM_FEModelElement.hpp	13KB	HPP File	9/17/01 11:38 AM
FEM_FEModelEquation.hpp	6KB	HPP File	9/17/01 11:38 AM
FEM_FEModelGroup.hpp	3KB	HPP File	9/17/01 11:38 AM
FEM_FEModelInterface.hpp	32KB	HPP File	9/17/01 11:38 AM
FEM_FEModelList.hpp	5KB	HPP File	9/17/01 11:38 AM
FEM_FEModelMaterial.hpp	3KB	HPP File	9/17/01 11:38 AM
FEM_FEModelMesh.hpp	15KB	HPP File	9/17/01 11:38 AM
FEM_FEModelMoveCopy.hpp	11KB	HPP File	9/17/01 11:38 AM
FEM_FEModelNode.hpp	7KB	HPP File	9/17/01 11:38 AM
FEM_FEModelPoint.hpp	5KB	HPP File	9/17/01 11:38 AM
FEM_FEModelPostprocessing.hpp	15KB	HPP File	9/17/01 11:38 AM
FEM_FEModelRegion.hpp	2KB	HPP File	9/17/01 11:38 AM
FEM_FEModelResult.hpp	11KB	HPP File	9/17/01 11:38 AM

65 object(s)      556 KB (Disk free space: 0 bytes)       My Computer

**FIG. 60**

**33/48**

**Exploring -D:\FEM Builder 1.2\Source\FemPython**

Name	Size	Type	Modified
FEM_FEModelSubModel.hpp	3KB	HPP File	9/17/01 11:38 AM
FEM_FEModelSurface.hpp	11KB	HPP File	9/17/01 11:38 AM
FEM_FEModelSweep.hpp	2KB	HPP File	9/17/01 11:38 AM
FEM_FEModelSystem.hpp	3KB	HPP File	9/17/01 11:38 AM
FEM_FEModelTools.hpp	3KB	HPP File	9/17/01 11:38 AM
FEM_FEModelVolume.hpp	9KB	HPP File	9/17/01 11:38 AM
FEM_FEProperty.hpp	9KB	HPP File	9/17/01 11:38 AM
FEM_FEPropertyGroup.hpp	7KB	HPP File	9/17/01 11:38 AM
FEM_FEResult.hpp	15KB	HPP File	9/17/01 11:38 AM
FEModel.cpp	5KB	CPP File	9/17/01 11:38 AM
FEModel.h	19KB	H File	9/17/01 11:38 AM
FEModelBC.cpp	39KB	CPP File	9/17/01 11:38 AM
FEModelColor.cpp	2KB	CPP File	9/17/01 11:38 AM
FEModelCurve.cpp	14KB	CPP File	9/17/01 11:38 AM
FEModelDelete.cpp	3KB	CPP File	9/17/01 11:38 AM
FEModelElement.cpp	14KB	CPP File	9/17/01 11:38 AM
FEModelEquation.cpp	3KB	CPP File	9/17/01 11:38 AM
FEModelGroup.cpp	5KB	CPP File	9/17/01 11:38 AM
FEModelInterface.cpp	49KB	CPP File	9/17/01 11:38 AM
FEModelList.cpp	5KB	CPP File	9/17/01 11:38 AM
FEModelMaterial.cpp	1KB	CPP File	9/17/01 11:38 AM
FEModelMesh.cpp	22KB	CPP File	9/17/01 11:38 AM
FEModelMoveCopy.cpp	13KB	CPP File	9/17/01 11:38 AM

65 object(s) 556KB (Disk free space: 0 bytes)  My Computer

**FIG. 61**

**Exploring -D:\FEM Builder 1.2\Source\FemPython**

Name	Size	Type	Modified
FEModelMaterial.cpp	1KB	CPP File	9/17/01 11:38 AM
FEModelMesh.cpp	22KB	CPP File	9/17/01 11:38 AM
FEModelMoveCopy.cpp	13KB	CPP File	9/17/01 11:38 AM
FEModelNode.cpp	7KB	CPP File	9/17/01 11:38 AM
FEModelPoint.cpp	5KB	CPP File	9/17/01 11:38 AM
FEModelPostprocessing.cpp	14KB	CPP File	9/17/01 11:38 AM
FEModelRegion.cpp	2KB	CPP File	9/17/01 11:38 AM
FEModelResult.cpp	9KB	CPP File	9/17/01 11:38 AM
FEModelSubModel.cpp	3KB	CPP File	9/17/01 11:38 AM
FEModelSurface.cpp	11KB	CPP File	9/17/01 11:38 AM
FEModelSweep.cpp	2KB	CPP File	9/17/01 11:38 AM
FEModelSystem.cpp	4KB	CPP File	9/17/01 11:38 AM
FEModelVolume.cpp	8KB	CPP File	9/17/01 11:38 AM
FemPython.dsp	10KB	DSW File	9/17/01 11:38 AM
FemPython.dsw	3KB	DSW File	9/17/01 11:38 AM
FEProperty.cpp	4KB	CPP File	9/17/01 11:38 AM
FEProperty.h	2KB	H File	9/17/01 11:38 AM
FEPropertyGroup.cpp	3KB	CPP File	9/17/01 11:38 AM
FEPropertyGroup.h	1KB	H File	9/17/01 11:38 AM
FEResult.cpp	10KB	CPP File	9/17/01 11:38 AM
FEResult.h	2KB	H File	9/17/01 11:38 AM
FEStddefn.h	1KB	H File	9/17/01 11:38 AM

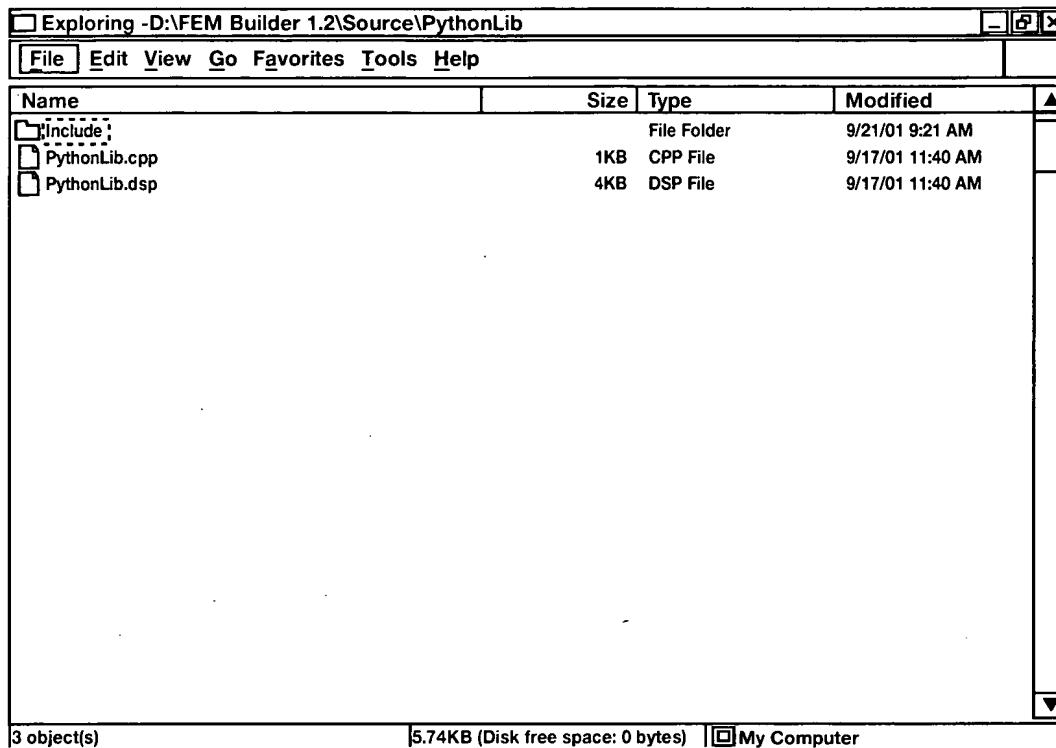
65 object(s) 556KB (Disk free space: 0 bytes)  My Computer

**FIG. 62**

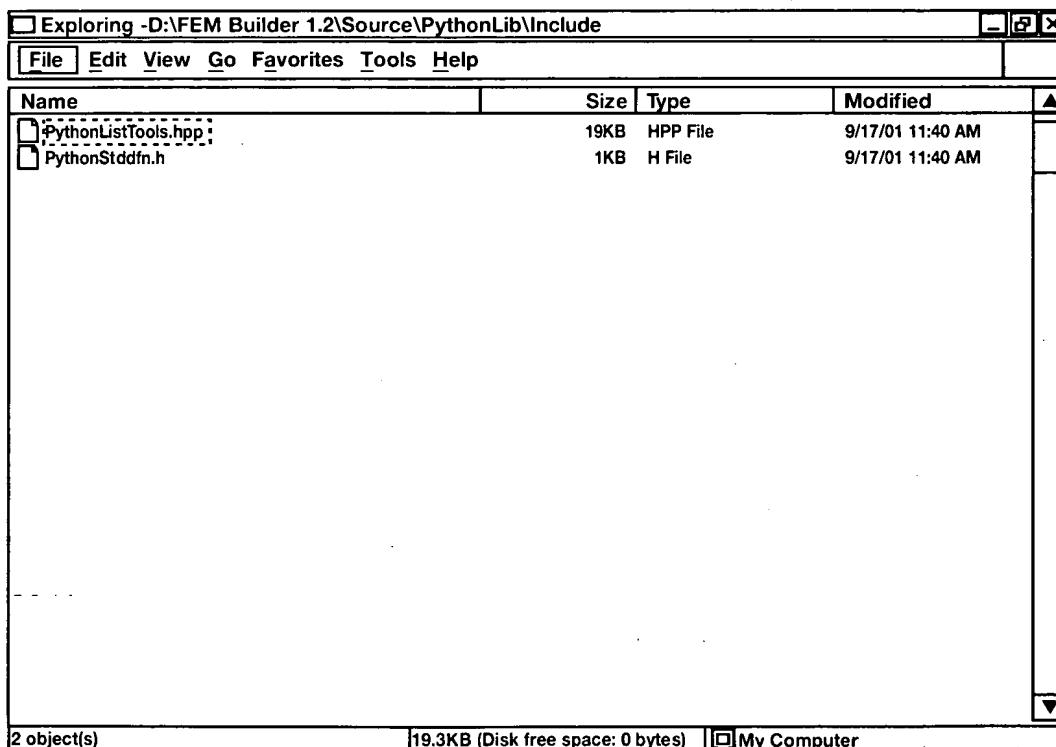
## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
Serial No.: 10/005,752  
Docket No.: 2507-5744.1US

34/48

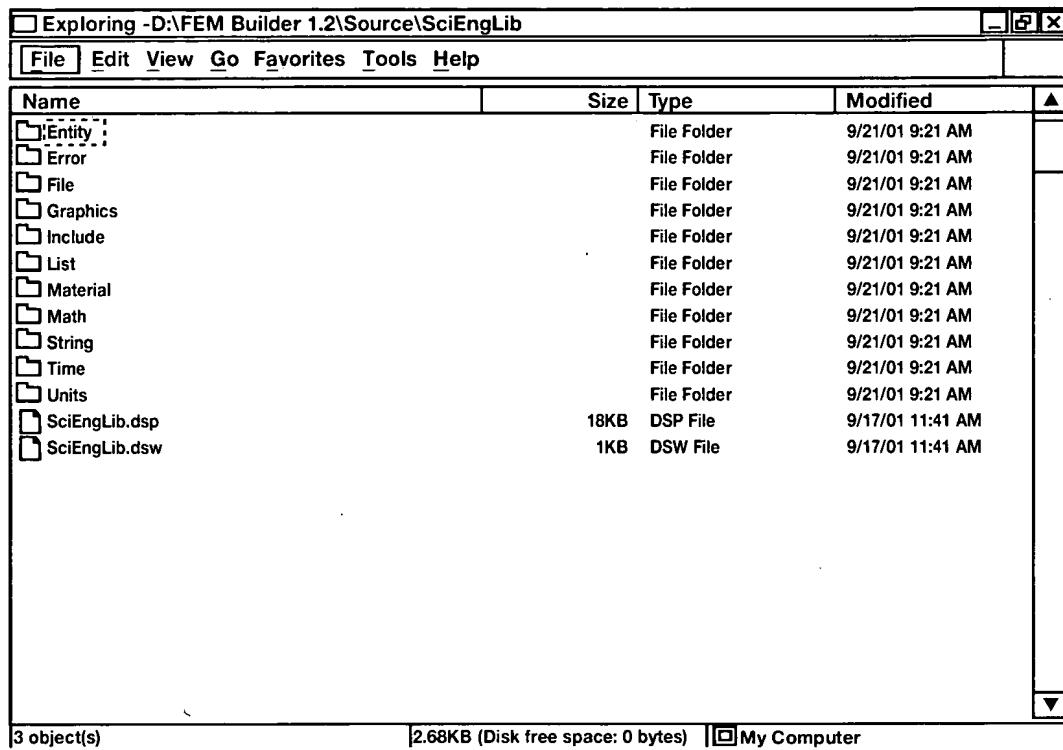


**FIG. 63**

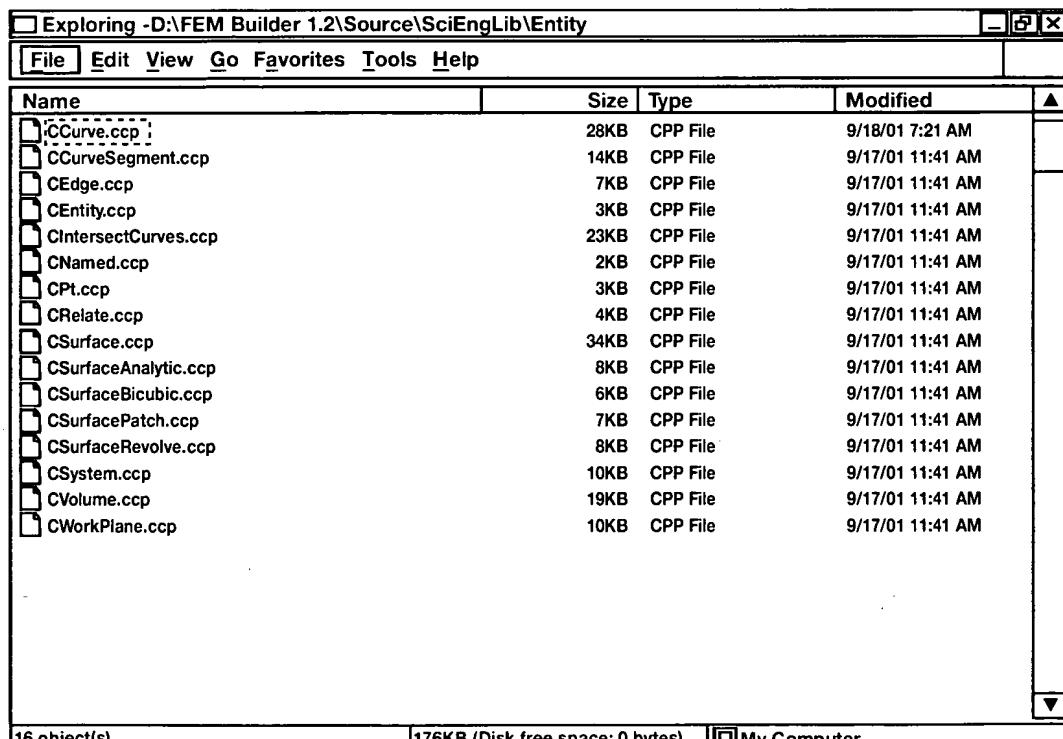


**FIG. 64**

35/48

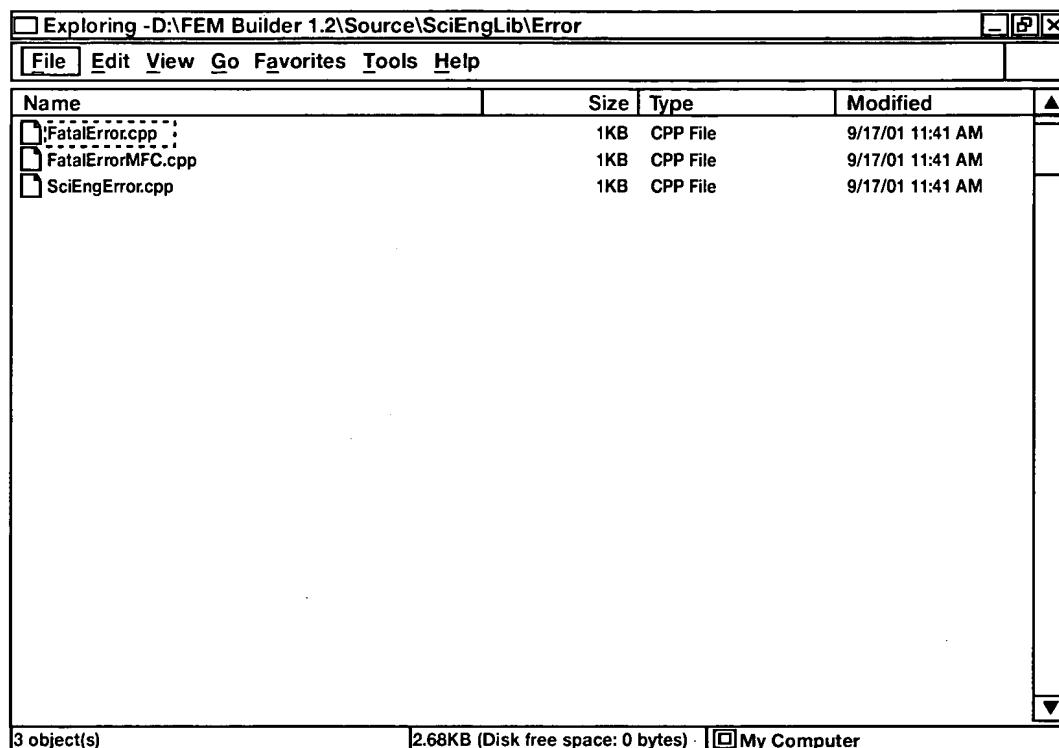


**FIG. 65**

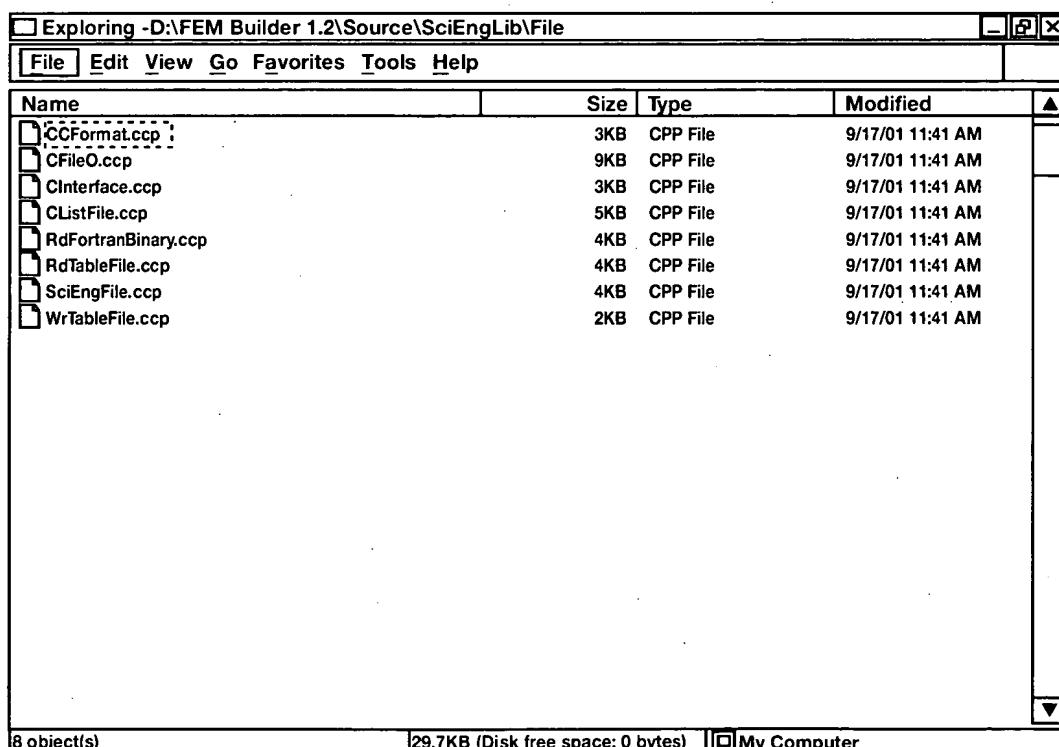


**FIG. 66**

36/48



**FIG. 67**



**FIG. 68**

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.1US

37/48

**Exploring -D:\FEM Builder 1.2\Source\SciEngLib\Graphics**

Name	Size	Type	Modified
CCColorButton.cpp	6KB	CPP File	9/17/01 11:41 AM
CDeviceDC.cpp	9KB	CPP File	9/17/01 11:41 AM
CDisplayList.cpp	20KB	CPP File	9/17/01 11:41 AM
CDisplayListHL.cpp	12KB	CPP File	9/17/01 11:41 AM
CMSWinDC.cpp	9KB	CPP File	9/17/01 11:41 AM
COpenGLDC.cpp	22KB	CPP File	9/21/01 7:04 AM
CRubberBand.cpp	6KB	CPP File	9/17/01 11:41 AM
CViewDC.cpp	45KB	CPP File	9/21/01 7:04 AM
CXYPlotAxis.cpp	8KB	CPP File	9/17/01 11:41 AM
CXYPlotCurve.cpp	19KB	CPP File	9/17/01 11:41 AM
CXYPlotAData.cpp	10KB	CPP File	9/17/01 11:41 AM
DrawSymbol.cpp	12KB	CPP File	9/17/01 11:41 AM
SciEngColor.cpp	7KB	CPP File	9/17/01 11:41 AM
SciEngDraw.cpp	2KB	CPP File	9/17/01 11:41 AM

14 object(s) 181KB (Disk free space: 0 bytes) My Computer

**FIG. 69**

**Exploring -D:\FEM Builder 1.2\Source\SciEngLib\Include**

Name	Size	Type	Modified
CAArray.h	3KB	H File	9/17/01 11:41 AM
CAArray.hpp	4KB	HPP File	9/17/01 11:41 AM
CAList.h	2KB	H File	9/17/01 11:41 AM
CAList.hpp	4KB	HPP File	9/17/01 11:41 AM
CCFormat.h	2KB	H File	9/17/01 11:41 AM
CCChemicalReaction.h	3KB	H File	9/17/01 11:41 AM
CCChemicalSpecies.h	2KB	H File	9/17/01 11:41 AM
CCColorButton.h	3KB	H File	9/17/01 11:41 AM
CCompositeProperty.h	3KB	H File	9/17/01 11:41 AM
CCurve.h	4KB	H File	9/17/01 11:41 AM
CCurveFit.h	2KB	H File	9/17/01 11:41 AM
CCurveSegment.h	3KB	H File	9/17/01 11:41 AM
CDateD.h	2KB	H File	9/17/01 11:41 AM
CDeviceDC.h	5KB	H File	9/17/01 11:41 AM
CDisplayList.h	14KB	H File	9/17/01 11:41 AM
CDisplayListHL.h	3KB	H File	9/17/01 11:41 AM
CDoubleList.h	2KB	H File	9/17/01 11:41 AM
CEdge.h	2KB	H File	9/17/01 11:41 AM
CEList.h	3KB	H File	9/17/01 11:41 AM
CEList.hpp	8KB	HPP File	9/17/01 11:41 AM
CEllipticIntegral.h	2KB	H File	9/17/01 11:41 AM
CEntity.h	4KB	H File	9/17/01 11:41 AM
CFileIO.h	4KB	H File	9/17/01 11:41 AM

117 object(s) 288KB (Disk free space: 0 bytes) My Computer

**FIG. 70**

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.IUS

**38/48**

**Exploring -D:\FEM Builder 1.2\Source\SciEngLib\Include**

Name	Size	Type	Modified
CFindRoot.h	2KB	H File	9/17/01 11:41 AM
CHash.h	3KB	H File	9/17/01 11:41 AM
CIntergrate.h	3KB	H File	9/17/01 11:41 AM
CIntegrateODE.h	5KB	H File	9/17/01 11:41 AM
CInterface.h	2KB	H File	9/17/01 11:41 AM
CIntersectCurves.h	2KB	H File	9/17/01 11:41 AM
ClntList.h	2KB	H File	9/17/01 11:41 AM
CLeastSquareFit.h	1KB	H File	9/17/01 11:41 AM
CLEList.h	2KB	H File	9/17/01 11:41 AM
CLEList.hpp	6KB	HPP File	9/17/01 11:41 AM
CLinkedList.h	2KB	H File	9/17/01 11:41 AM
CLinkedList.hpp	6KB	HPP File	9/17/01 11:41 AM
CListFile.h	2KB	H File	9/17/01 11:41 AM
CMaterialDB.h	2KB	H File	9/17/01 11:41 AM
CMatID.h	3KB	H File	9/17/01 11:41 AM
CMSWinDC.h	3KB	H File	9/17/01 11:41 AM
CNamed.h	2KB	H File	9/17/01 11:41 AM
CNEList.h	2KB	H File	9/17/01 11:41 AM
CNEList.hpp	4KB	HPP File	9/17/01 11:41 AM
CNewtonRaphson.h	2KB	H File	9/17/01 11:41 AM
CNTable.hpp	3KB	HPP File	9/17/01 11:41 AM
COpenGLDC.h	5KB	H File	9/21/01 7:04 AM
COptimize1D.h	3KB	H File	9/17/01 11:41 AM

117 object(s) 288KB (Disk free space: 0 bytes) My Computer

**FIG. 71**

**Exploring -D:\FEM Builder 1.2\Source\SciEngLib\Include**

Name	Size	Type	Modified
COptimizeND.h	3KB	H File	9/17/01 11:41 AM
CPrpAnnotation.h	2KB	H File	9/17/01 11:41 AM
CPrpAttr.h	2KB	H File	9/17/01 11:41 AM
CPrpDB.h	3KB	H File	9/17/01 11:41 AM
CPrpGroup.h	2KB	H File	9/17/01 11:41 AM
CPrpNote.h	1KB	H File	9/17/01 11:41 AM
CPrpTable.h	2KB	H File	9/17/01 11:41 AM
CPt.h	2KB	H File	9/17/01 11:41 AM
CRelate.h	2KB	H File	9/17/01 11:41 AM
CRelate.hpp	1KB	HPP File	9/17/01 11:41 AM
CRubberBand.h	2KB	H File	9/17/01 11:41 AM
CSet.h	2KB	H File	9/17/01 11:41 AM
CSet.hpp	6KB	HPP File	9/17/01 11:41 AM
CSetArray.h	6KB	H File	9/17/01 11:41 AM
CSpline.h	2KB	H File	9/17/01 11:41 AM
CSurface.hpp	11KB	HPP File	9/17/01 11:41 AM
CSurfaceEdge.h	2KB	H File	9/17/01 11:41 AM
CSurfaceFit.h	3KB	H File	9/17/01 11:41 AM
CSurfacePatch.h	3KB	H File	9/17/01 11:41 AM
CSystem.h	3KB	H File	9/17/01 11:41 AM
CTable.h	4KB	H File	9/17/01 11:41 AM
CTableCell.h	3KB	H File	9/17/01 11:41 AM
CText.h	3KB	H File	9/17/01 11:41 AM

117 object(s) 288KB (Disk free space: 0 bytes) My Computer

**FIG. 72**

**39/48**

**Exploring -D:\FEM Builder 1.2\Source\SciEngLib\Include**

Name	Size	Type	Modified
CTextFont.h	2KB	H File	9/17/01 11:41 AM
CTextFontDialog.h	1KB	H File	9/17/01 11:41 AM
CTimeDate.h	2KB	H File	9/17/01 11:41 AM
CTimeMS.h	2KB	H File	9/17/01 11:41 AM
CUnitSystem.h	4KB	H File	9/17/01 11:41 AM
CViewDC.h	10KB	H File	9/21/01 7:04 AM
CViewDCDef.h	2KB	H File	9/17/01 11:41 AM
CVolume.h	4KB	H File	9/17/01 11:41 AM
CWorkPlane.h	4KB	H File	9/17/01 11:41 AM
CXYPlotAxis.h	3KB	H File	9/17/01 11:41 AM
CXYPlotCurve.h	5KB	H File	9/17/01 11:41 AM
CXYPlotData.h	3KB	H File	9/21/01 7:04 AM
DrawSymbol.h	2KB	H File	9/17/01 11:41 AM
MatProperty.h	2KB	H File	9/17/01 11:41 AM
MatPropertyInfo.h	2KB	H File	9/17/01 11:41 AM
RdFortranBinary.h	3KB	H File	9/17/01 11:41 AM
RdMaterialDB.h	2KB	H File	9/17/01 11:41 AM
RdPrpDB.h	2KB	H File	9/17/01 11:41 AM
RdTableFile.h	2KB	H File	9/17/01 11:41 AM
SciEngBit.h	1KB	H File	9/17/01 11:41 AM
SciEngBit.hpp	1KB	HPP File	9/17/01 11:41 AM
SciEngColor.h	3KB	H File	9/17/01 11:41 AM
SciEngCSystem.h	2KB	H File	9/17/01 11:41 AM

117 object(s)      288KB (Disk free space: 0 bytes)      My Computer

**FIG. 73**

**Exploring -D:\FEM Builder 1.2\Source\SciEngLib\Include**

Name	Size	Type	Modified
SciEngCurve.h	3KB	H File	9/17/01 11:41 AM
SciEngCurveFit.h	7KB	H File	9/17/01 11:41 AM
SciEngDraw.h	1KB	H File	9/17/01 11:41 AM
SciEngError.h	1KB	H File	9/17/01 11:41 AM
SciEngFile.h	2KB	H File	9/17/01 11:41 AM
SciEngLib.h	3KB	H File	9/17/01 11:41 AM
SciEngMath.h	4KB	H File	9/17/01 11:41 AM
SciEngMath.hpp	4KB	HPP File	9/17/01 11:41 AM
SciEngMatrix.h	3KB	H File	9/17/01 11:41 AM
SciEngMove.h	1KB	H File	9/17/01 11:41 AM
SciEngMove.hpp	1KB	HPP File	9/17/01 11:41 AM
SciEngPoint.h	4KB	H File	9/17/01 11:41 AM
SciEngPolygon.h	1KB	H File	9/17/01 11:41 AM
SciEngResult.h	2KB	H File	9/17/01 11:41 AM
SciEngSort.h	1KB	H File	9/17/01 11:41 AM
SciEngSort.hpp	5KB	HPP File	9/17/01 11:41 AM
SciEngStddfn.h	3KB	H File	9/17/01 11:41 AM
SciEngStr.h	3KB	H File	9/17/01 11:41 AM
SciEngSurface.h	1KB	H File	9/17/01 11:41 AM
SciEngVector.h	2KB	H File	9/17/01 11:41 AM
SciEngVector.hpp	1KB	HPP File	9/17/01 11:41 AM
StdAfx.h	1KB	H File	9/17/01 11:41 AM
WrMaterialDB.h	1KB	H File	9/17/01 11:41 AM

117 object(s)      288KB (Disk free space: 0 bytes)      My Computer

**FIG. 74**

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.1US

40/48

**Exploring -D:\FEM Builder 1.2\Source\SciEngLib\Include**

Name	Size	Type	Modified
SciEngError.h	1KB	H File	9/17/01 11:41 AM
SciEngFile.h	2KB	H File	9/17/01 11:41 AM
SciEngLib.h	3KB	H File	9/17/01 11:41 AM
SciEngMath.h	4KB	H File	9/17/01 11:41 AM
SciEngMath.hpp	4KB	HPP File	9/17/01 11:41 AM
SciEngMatrix.h	3KB	H File	9/17/01 11:41 AM
SciEngMove.h	1KB	H File	9/17/01 11:41 AM
SciEngMove.hpp	1KB	HPP File	9/17/01 11:41 AM
SciEngPoint.h	4KB	H File	9/17/01 11:41 AM
SciEngPolygon.h	1KB	H File	9/17/01 11:41 AM
SciEngResult.h	2KB	H File	9/17/01 11:41 AM
SciEngSort.h	1KB	H File	9/17/01 11:41 AM
SciEngSort.hpp	5KB	HPP File	9/17/01 11:41 AM
SciEngStddef.h	3KB	H File	9/17/01 11:41 AM
SciEngStr.h	3KB	H File	9/17/01 11:41 AM
SciEngSurface.h	1KB	H File	9/17/01 11:41 AM
SciEngVector.h	2KB	H File	9/17/01 11:41 AM
SciEngVector.hpp	1KB	HPP File	9/17/01 11:41 AM
StdAfx.h	1KB	H File	9/17/01 11:41 AM
WrMaterialDB.h	1KB	H File	9/17/01 11:41 AM
WrPrpDB.h	2KB	H File	9/17/01 11:41 AM
WrTableFile.h	1KB	H File	9/17/01 11:41 AM

117 object(s) 288KB (Disk free space: 0 bytes) My Computer

**FIG. 75**

**Exploring -D:\FEM Builder 1.2\Source\SciEngLib\List**

Name	Size	Type	Modified
CDoubleList.cpp	3KB	CPP File	9/17/01 11:41 AM
CHash.cpp	17KB	CPP File	9/17/01 11:41 AM
CIntList.cpp	4KB	CPP File	9/17/01 11:41 AM

3 object(s) 21.4KB (Disk free space: 0 bytes) My Computer

**FIG. 76**

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.1US

41/48

Exploring -D:\FEM Builder 1.2\Source\SciEngLib\Material

Name	Size	Type	Modified
CCChemicalReaction.cpp	5KB	CPP File	9/17/01 11:41 AM
CCompositeProperty.cpp	8KB	CPP File	9/17/01 11:41 AM
CMaterialDB.cpp	6KB	CPP File	9/17/01 11:41 AM
CMatID.cpp	5KB	CPP File	9/17/01 11:41 AM
CNTable.cpp	7KB	CPP File	9/17/01 11:41 AM
CPrpAnnotation.cpp	3KB	CPP File	9/17/01 11:41 AM
CPrpAttr.cpp	4KB	CPP File	9/17/01 11:41 AM
CPrpDB.cpp	4KB	CPP File	9/17/01 11:41 AM
CPrpGroup.cpp	5KB	CPP File	9/17/01 11:41 AM
CPrpTable.cpp	2KB	CPP File	9/17/01 11:41 AM
CTable.cpp	12KB	CPP File	9/17/01 11:41 AM
CTableCell.cpp	4KB	CPP File	9/17/01 11:41 AM
MatPropertyInfo.cpp	23KB	CPP File	9/17/01 11:41 AM
RdMaterialDB.cpp	7KB	CPP File	9/17/01 11:41 AM
RdPrpDB.cpp	7KB	CPP File	9/17/01 11:41 AM
WrMaterialDB.cpp	3KB	CPP File	9/17/01 11:41 AM
WrPrpDB.cpp	6KB	CPP File	9/17/01 11:41 AM

17 object(s) 103KB (Disk free space: 0 bytes) My Computer

FIG. 77

Exploring -D:\FEM Builder 1.2\Source\SciEngLib\Math

Name	Size	Type	Modified
ICCurveFit.cpp	3KB	CPP File	9/17/01 11:41 AM
CEllipticIntegral.cpp	6KB	CPP File	9/17/01 11:41 AM
CFindRoot.cpp	8KB	CPP File	9/17/01 11:41 AM
CIntegrate.cpp	20KB	CPP File	9/17/01 11:41 AM
CIntegrateODE.cpp	11KB	CPP File	9/17/01 11:41 AM
CLeastSquareFit.cpp	3KB	CPP File	9/17/01 11:41 AM
CNewtonRaphson.cpp	7KB	CPP File	9/17/01 11:41 AM
COptimize1D.cpp	9KB	CPP File	9/17/01 11:41 AM
COptimizeND.cpp	8KB	CPP File	9/17/01 11:41 AM
CSpline.cpp	6KB	CPP File	9/17/01 11:41 AM
CSurfaceFit.cpp	10KB	CPP File	9/17/01 11:41 AM
SciEngCSystem.cpp	4KB	CPP File	9/17/01 11:41 AM
SciEngCurve.cpp	19KB	CPP File	9/17/01 11:41 AM
SciEngCurveFit.cpp	34KB	CPP File	9/17/01 11:41 AM
SciEngMath.cpp	16KB	CPP File	9/17/01 11:41 AM
SciEngMatrix.cpp	33KB	CPP File	9/17/01 11:41 AM
SciEngMove.cpp	1KB	CPP File	9/17/01 11:41 AM
SciEngPoint.cpp	30KB	CPP File	9/17/01 11:41 AM
SciEngPolygon.cpp	5KB	CPP File	9/17/01 11:41 AM
SciEngResult.cpp	18KB	CPP File	9/17/01 11:41 AM
SciEngSort.cpp	1KB	CPP File	9/17/01 11:41 AM
SciEngSurface.cpp	11KB	CPP File	9/17/01 11:41 AM
SciEngVector.cpp	6KB	CPP File	9/17/01 11:41 AM

23 object(s) 258KB (Disk free space: 0 bytes) My Computer

FIG. 78

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.1US

42/48

**Exploring -D:\FEM Builder 1.2\Source\SciEngLib\Math**

Name	Size	Type	Modified
CELipticIntegral.cpp	6KB	CPP File	9/17/01 11:41 AM
CFindRoot.cpp	8KB	CPP File	9/17/01 11:41 AM
CIntegrate.cpp	20KB	CPP File	9/17/01 11:41 AM
CIntegrateODE.cpp	11KB	CPP File	9/17/01 11:41 AM
CLeastSquareFit.cpp	3KB	CPP File	9/17/01 11:41 AM
CNewtonRaphson.cpp	7KB	CPP File	9/17/01 11:41 AM
COptimize1D.cpp	9KB	CPP File	9/17/01 11:41 AM
COptimizeND.cpp	8KB	CPP File	9/17/01 11:41 AM
CSpline.cpp	6KB	CPP File	9/17/01 11:41 AM
CSurfaceFit.cpp	10KB	CPP File	9/17/01 11:41 AM
SciEngCSystem.cpp	4KB	CPP File	9/17/01 11:41 AM
SciEngCurve.cpp	19KB	CPP File	9/17/01 11:41 AM
SciEngCurveFit.cpp	34KB	CPP File	9/17/01 11:41 AM
SciEngMath.cpp	16KB	CPP File	9/17/01 11:41 AM
SciEngMatrix.cpp	33KB	CPP File	9/17/01 11:41 AM
SciEngMove.cpp	1KB	CPP File	9/17/01 11:41 AM
SciEngPoint.cpp	30KB	CPP File	9/17/01 11:41 AM
SciEngPolygon.cpp	5KB	CPP File	9/17/01 11:41 AM
SciEngResult.cpp	18KB	CPP File	9/17/01 11:41 AM
SciEngSort.cpp	1KB	CPP File	9/17/01 11:41 AM
SciEngSurface.cpp	11KB	CPP File	9/17/01 11:41 AM
SciEngVector.cpp	6KB	CPP File	9/17/01 11:41 AM

23 object(s) 258KB (Disk free space: 0 bytes) My Computer

**FIG. 79**

**Exploring -D:\FEM Builder 1.2\Source\SciEngLib\String**

Name	Size	Type	Modified
!CText.cpp	5KB	CPP File	9/17/01 11:41 AM
CTextFont.cpp	2KB	CPP File	9/17/01 11:41 AM
CTextFontDialog.cpp	2KB	CPP File	9/17/01 11:41 AM
SciEngStr.cpp	16KB	CPP File	9/17/01 11:41 AM

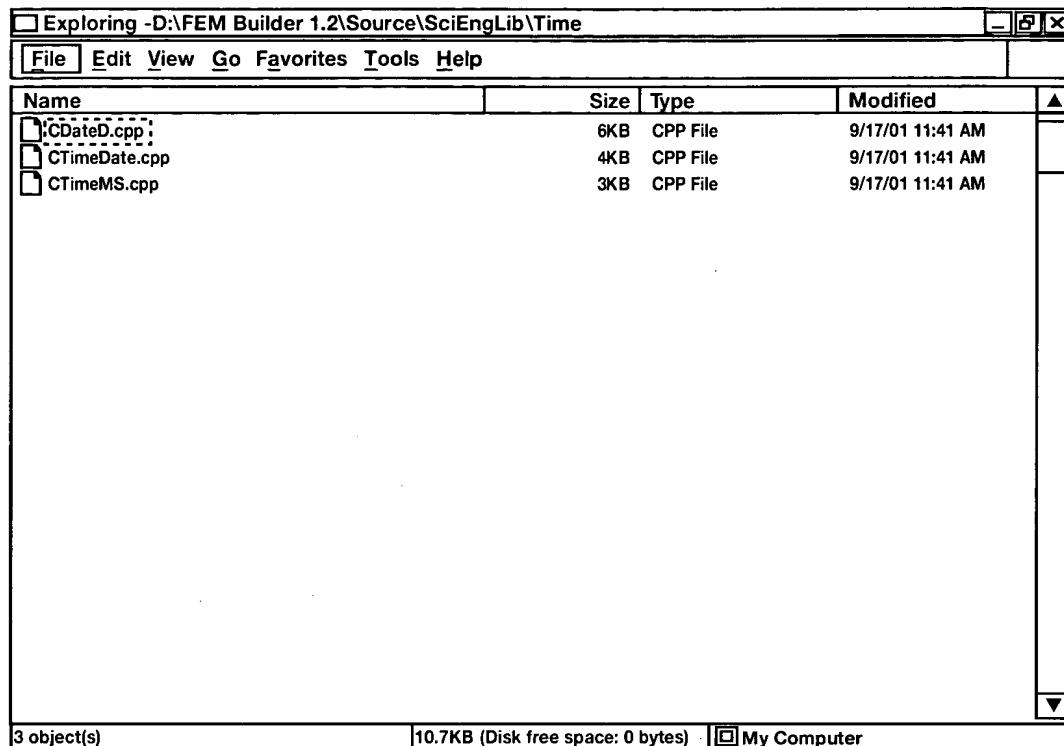
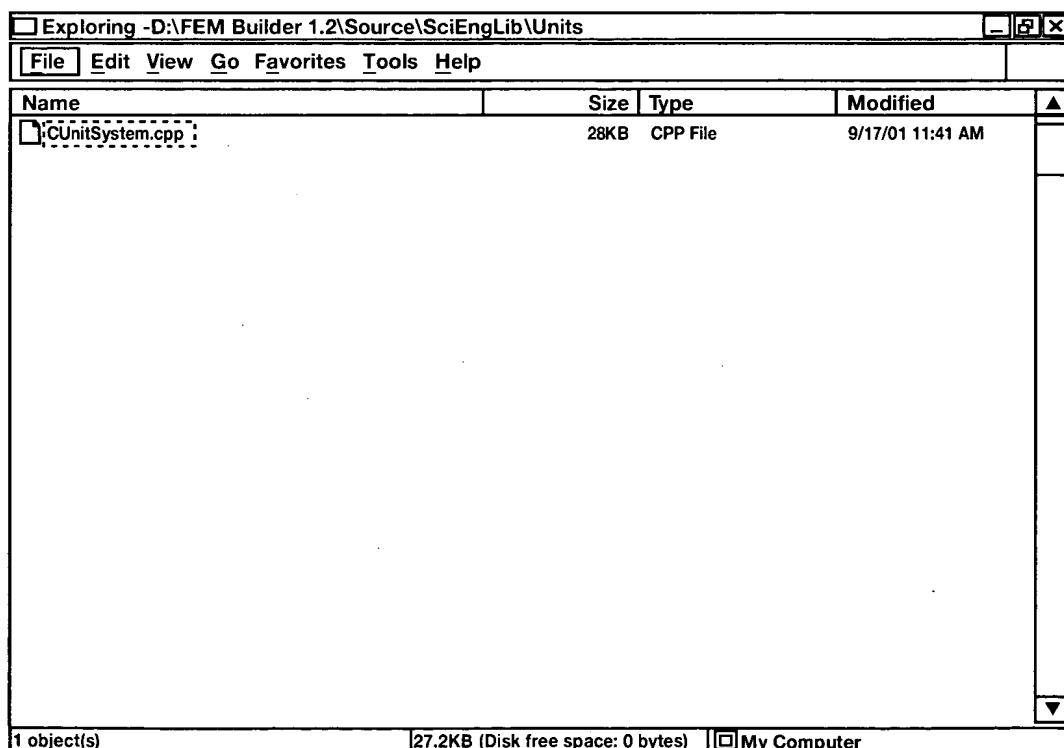
4 object(s) 23.9KB (Disk free space: 0 bytes) My Computer

**FIG. 80**

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
Serial No.: 10/005,752  
Docket No.: 2507-5744.1US

43/48

**FIG. 81****FIG. 82**

**44/48**

**Exploring -D:\FEM Builder 1.2\Test**

File Edit View Go Favorites Tools Help			
Name	Size	Type	Modified
[Python]		File Folder	9/21/01 9:21 AM
[Results]		File Folder	9/21/01 9:21 AM
Ablation-Structure.unv	1,858KB	UNV File	9/17/01 11:34 AM
Ablation-Thermal-Aft.plt	415KB	PLT File	9/17/01 11:34 AM
Ablation-Thermal-Fwd.plt	1,640KB	PLT File	9/17/01 11:34 AM
Axisym1.fdb	8KB	FDB File	9/17/01 11:34 AM
Axisym1.fil	40KB	FIL File	9/17/01 11:34 AM
Axisym1.resinp	4KB	RESINP File	9/17/01 11:34 AM
Axisym1.unv	11KB	UNV File	9/17/01 11:34 AM
Axisym1BC.fdb	7KB	FDB File	9/17/01 11:34 AM
Axisym1Caxa.fil	216KB	FIL File	9/17/01 11:34 AM
Axisym1Caxa.inp	4KB	INP File	9/17/01 11:34 AM
Axisym1CAXAResults.fdb	52KB	FDB File	9/17/01 11:34 AM
Axisym1CentResults.fdb	31KB	FDB File	9/17/01 11:34 AM
Axisym1Results.fdb	30KB	FDB File	9/17/01 11:34 AM
BoundaryListCheck1.fdb	4KB	FDB File	9/17/01 11:34 AM
CheckConnectivity.fdb	30KB	FDB File	9/17/01 11:34 AM
ChemicalReaction.fdb	1KB	FDB File	9/17/01 11:34 AM
ConcidentNodes.fdb	2KB	FDB File	9/17/01 11:34 AM
Constrain2d.fdb	13KB	FDB File	9/17/01 11:34 AM
Constrain3d.fdb	34KB	FDB File	9/17/01 11:34 AM
cp1d_bb.resinp	41KB	RESINP File	9/17/01 11:34 AM
cp1d_bb.resout	83KB	RESOUT File	9/17/01 11:34 AM

187 object(s) 49.2MB (Disk free space: 0 bytes) | My Computer

**FIG. 83**

**Exploring -D:\FEM Builder 1.2\Test**

File Edit View Go Favorites Tools Help			
Name	Size	Type	Modified
cp1d_bls.resinp	7KB	RESINP File	9/17/01 11:35 AM
cp1d_bls.resout	245KB	RESOUT File	9/17/01 11:35 AM
cp1d_blt.resinp	8KB	RESINP File	9/17/01 11:35 AM
cp1d_blt.resout	246KB	RESOUT File	9/17/01 11:35 AM
cp1d_cbs.resinp	60KB	RESINP File	9/17/01 11:35 AM
cp1d_cbs.resout	98KB	RESOUT File	9/17/01 11:35 AM
cp1d_cbt.resinp	61KB	RESINP File	9/17/01 11:35 AM
cp1d_cbt.resout	96KB	RESOUT File	9/17/01 11:35 AM
Crack1FQ.fdb	38KB	FDB File	9/17/01 11:35 AM
Crack1FQ.fil	140KB	FIL File	9/17/01 11:35 AM
Crack1FQResults.fdb	175KB	FDB File	9/17/01 11:35 AM
Crack2DFFSL.fdb	16KB	FDB File	9/17/01 11:35 AM
Crack2DFFSL.fil	108KB	FIL File	9/17/01 11:35 AM
Crack2DFFSL.inp	6KB	INP File	9/17/01 11:35 AM
Crack2DFFSQ.fdb	32KB	FDB File	9/17/01 11:35 AM
Crack2DFFSQ.fil	199KB	FIL File	9/17/01 11:35 AM
Crack2DFFSQ.inp	13KB	INP File	9/17/01 11:35 AM
Crack2DFZL.fdb	113KB	FDB File	9/17/01 11:35 AM
Crack2DFZL.fil	1,707KB	FIL File	9/17/01 11:35 AM
Crack2DFZL.inp	44KB	INP File	9/17/01 11:35 AM
Crack2DFZQ.fdb	243KB	FDB File	9/17/01 11:35 AM
Crack2DFZQ.fil	3,487KB	FIL File	9/17/01 11:35 AM
Crack2DFZQ.inp	102KB	INP File	9/17/01 11:35 AM

187 object(s) 49.2MB (Disk free space: 0 bytes) | My Computer

**FIG. 84**

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.1US

45/48

Exploring -D:\FEM Builder 1.2\Test

<input type="checkbox"/>	Name	Size	Type	Modified
<input type="checkbox"/>	Crack2DPS.fdb	32KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack2DSFMQ.fdb	18KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack2DSFML.fil	104KB	FIL File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack2DSFML.inp	7KB	INP File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack2DSFMQ.fdb	37KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack2DSFMQ.fil	213KB	FIL File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack2DSFMQ.inp	15KB	INP File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack2DSZL.fdb	75KB	PDB File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack2DSZL.fil	1,065KB	FIL File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack2DSZL.inp	29KB	INP File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack2DSZQ.fdb	153KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack2DSZQ.fil	2,175KB	FIL File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack2DSZQ.inp	63KB	INP File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack3DFFSL.fdb	47KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack3DFFSL.fil	449KB	FIL File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack3DFFSL.inp	20KB	INP File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack3DFFSQ.fdb	128KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack3DFFSQ.fil	1,154KB	FIL File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack3DFFSQ.inp	62KB	INP File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack3DPS.fdb	114KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack3DSFML.fdb	58KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack3DSFML.fil	519KB	FIL File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack3DSFML.inp	25KB	INP File	9/17/01 11:35 AM

187 object(s) 49.2MB (Disk free space: 0 bytes)  My Computer

FIG. 85

Exploring -D:\FEM Builder 1.2\Test

<input type="checkbox"/>	Name	Size	Type	Modified
<input type="checkbox"/>	Crack3DSFMQ.fdb	157KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack3DSFMQ.fil	1,333KB	FIL File	9/17/01 11:35 AM
<input type="checkbox"/>	Crack3DSFMQ.inp	77KB	INP File	9/17/01 11:35 AM
<input type="checkbox"/>	CrackSBRAMSubScaleAxial.fdb	296KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	CrackSBRAMSubScaleAxial.fil	2,097KB	FIL File	9/17/01 11:35 AM
<input type="checkbox"/>	CrackSBRAMSubScaleAxial.inp	127KB	INP File	9/17/01 11:35 AM
<input type="checkbox"/>	CrackSBRAMSubScaleRadial.fdb	320KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	CrackSBRAMSubScaleRadial.fil	2,319KB	FIL File	9/17/01 11:35 AM
<input type="checkbox"/>	CrackSBRAMSubScaleRadial.inp	130KB	INP File	9/17/01 11:35 AM
<input type="checkbox"/>	CrackSBRAMSubScaleRadial3D.fdb	1,230KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	CrackSBRAMSubScaleRadial3D.fil	13,507KB	FIL File	9/17/01 11:35 AM
<input type="checkbox"/>	CrackSBRAMSubScaleRadial3D.inp	673KB	INP File	9/17/01 11:35 AM
<input type="checkbox"/>	CurveFit1.dat	1KB	Movie Clip	9/17/01 11:35 AM
<input type="checkbox"/>	CurveFit2.dat	1KB	Movie Clip	9/17/01 11:35 AM
<input type="checkbox"/>	CurveFit3.dat	1KB	Movie Clip	9/17/01 11:35 AM
<input type="checkbox"/>	CurveFit4.dat	1KB	Movie Clip	9/17/01 11:35 AM
<input type="checkbox"/>	CurveFit5.dat	1KB	Movie Clip	9/17/01 11:35 AM
<input type="checkbox"/>	EdgeNotched2D.fdb	275KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	EdgeNotched3D.fdb	594KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	EditColor.fdb	9KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	ElementDistortion2D.fdb	3KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	ElementDistortion3D.fdb	5KB	FDB File	9/17/01 11:35 AM
<input type="checkbox"/>	Example4.fdb	47KB	FDB File	9/17/01 11:35 AM

187 object(s) 49.2MB (Disk free space: 0 bytes)  My Computer

FIG. 86

## TITLE: SYSTEM FOR PERFORMING COUPLED FINITE ANALYSIS

Inventor: Iverson et al.  
 Serial No.: 10/005,752  
 Docket No.: 2507-5744.1US

46/48

Exploring -D:\FEM Builder 1.2\Test

Name	Size	Type	Modified
InterfaceFemDB_1.fdb	13KB	FDB File	9/17/01 11:35 AM
InterfaceFemDB_2.fdb	15KB	FDB File	9/17/01 11:35 AM
Interfacelideas_1.unv	31KB	UNV File	9/17/01 11:35 AM
LessFluid.fdb	1,507KB	FDB File	9/17/01 11:35 AM
LessFluid-CustomSolve.jou	1KB	JOU File	9/17/01 11:35 AM
LessSolid.fdb	620KB	FDB File	9/17/01 11:35 AM
LineElement.fdb	2KB	FDB File	9/17/01 11:35 AM
MatProp1.pdb	2KB	PDB File	9/17/01 11:35 AM
MatProp2.pdb	1KB	PDB File	9/17/01 11:35 AM
MeshSurface.fdb	20KB	FDB File	9/17/01 11:35 AM
MeshVolume.fdb	24KB	FDB File	9/17/01 11:35 AM
MixingElbow.cas	129KB	CAS File	9/17/01 11:35 AM
MixingElbow.dat	212KB	Movie Clip	9/17/01 11:35 AM
MixingElbow.fdb	657KB	FDB File	9/17/01 11:35 AM
Nozzle1.jou	1KB	JOU File	9/17/01 11:35 AM
Nozzle1_ascii.cas	263KB	CAS File	9/17/01 11:35 AM
Nozzle1_ascii.dat	980KB	Movie Clip	9/17/01 11:35 AM
NozzleModel.cas	172KB	CAS File	9/17/01 11:35 AM
NozzleModel.dat	365KB	Movie Clip	9/17/01 11:35 AM
P&NRegions.fdb	4KB	FDB File	9/17/01 11:35 AM
PipeFlow.cas	28KB	CAS File	9/17/01 11:35 AM
PipeFlow.dat	11KB	Movie Clip	9/17/01 11:35 AM
PipeFlow.fdb	7KB	FDB File	9/17/01 11:35 AM

187 object(s) | 49.2MB (Disk free space: 0 bytes) |  My Computer

FIG. 87

Exploring -D:\FEM Builder 1.2\Test

Name	Size	Type	Modified
PlaneE1.fdb	8KB	FDB File	9/17/01 11:35 AM
PlaneE1.fil	30KB	FIL File	9/17/01 11:35 AM
PlaneE1.inp	3KB	INP File	9/17/01 11:35 AM
PlaneE1.unv	12KB	UNV File	9/17/01 11:35 AM
PlaneE1G.fdb	9KB	FDB File	9/17/01 11:35 AM
PlaneE2.fdb	43KB	FDB File	9/17/01 11:35 AM
PlaneE2.fil	223KB	FIL File	9/17/01 11:35 AM
PlaneE2.resinp	16KB	RESINP File	9/17/01 11:35 AM
PlaneE2F.fdb	152KB	FDB File	9/17/01 11:35 AM
PlaneE2F.unv	159KB	UNV File	9/17/01 11:35 AM
PlaneS1.fdb	10KB	FDB File	9/17/01 11:35 AM
PlaneS2.fdb	65KB	FDB File	9/17/01 11:35 AM
PlaneS2.fil	386KB	FIL File	9/17/01 11:35 AM
RdAschar.plt	79KB	PLT File	9/17/01 11:35 AM
RdCCM_1.ccmout	2KB	CCMOUT File	9/17/01 11:35 AM
RdCDCA_1.cdcout	67KB	CDCOUT File	9/17/01 11:35 AM
RWAnsys1.cdb	20KB	CDB File	9/17/01 11:35 AM
RWAnsys2.cdb	7KB	CDB File	9/17/01 11:35 AM
RWIdeas1.unv	185KB	UNV File	9/17/01 11:35 AM
SBRAMSubScale.fdb	242KB	FDB File	9/17/01 11:35 AM
SelectByRegion.fdb	4KB	FDB File	9/17/01 11:35 AM
SelectCurve.fdb	14KB	FDB File	9/17/01 11:35 AM
SelectGroup.fdb	15KB	FDB File	9/17/01 11:35 AM

187 object(s) | 49.2MB (Disk free space: 0 bytes) |  My Computer

FIG. 88

**47/48**

Exploring -D:\FEM Builder 1.2\Test

Name	Size	Type	Modified
Example4.fil	246KB	FIL File	9/17/01 11:35 AM
Example4.inp	16KB	INP File	9/17/01 11:35 AM
Example4F.fdb	33KB	FDB File	9/17/01 11:35 AM
ExpCurve.dat	2KB	Movie Clip	9/17/01 11:35 AM
fdv.nam	1KB	NAM File	9/17/01 11:35 AM
fdv.xyz	5KB	XYZ File	9/17/01 11:35 AM
fdv0001.dat	14KB	Movie Clip	9/17/01 11:35 AM
fdv3d.nam	1KB	NAM File	9/17/01 11:35 AM
fdv3d.xyz	28KB	XYZ File	9/17/01 11:35 AM
fdv3d0001.dat	91KB	Movie Clip	9/17/01 11:35 AM
FluidCFD1.fdb	8KB	FDB File	9/17/01 11:35 AM
FluidCFD1.inp	3KB	INP File	9/17/01 11:35 AM
Geometry.fdb	22KB	FDB File	9/17/01 11:35 AM
GeometryEdit_1.fdb	3KB	FDB File	9/17/01 11:35 AM
GridGen.grd	6KB	GRD File	9/17/01 11:35 AM
GridGen.p3d	23KB	P3D File	9/17/01 11:35 AM
Heat0.fdb	8KB	FDB File	9/17/01 11:35 AM
Heat0.sot	11KB	SOT File	9/17/01 11:35 AM
Heat1.fdb	9KB	FDB File	9/17/01 11:35 AM
Heat1.sot	4KB	SOT File	9/17/01 11:35 AM
HTAxisym1.fdb	8KB	FDB File	9/17/01 11:35 AM
InsertFlawLinear.fdb	35KB	FDB File	9/17/01 11:35 AM
InsertFlawQuadratic.fdb	69KB	FDB File	9/17/01 11:35 AM

187 object(s) 49.2MB (Disk free space: 0 bytes) My Computer

**FIG. 89**

Exploring -D:\FEM Builder 1.2\Test

Name	Size	Type	Modified
sharp.plt	6KB	PLT File	9/17/01 11:35 AM
SinGen.gin	27KB	GIN File	9/17/01 11:35 AM
SinGen.out	1,009KB	OUT File	9/17/01 11:35 AM
Smooth2d_1.fdb	17KB	FDB File	9/17/01 11:35 AM
Smooth2d_2.fdb	16KB	FDB File	9/17/01 11:35 AM
Smooth2d_3.fdb	54KB	FDB File	9/17/01 11:35 AM
Solid1L.fdb	9KB	FDB File	9/17/01 11:35 AM
Solid1L.fil	53KB	FIL File	9/17/01 11:35 AM
Solid1L.resinp	4KB	RESINP File	9/17/01 11:35 AM
Solid1L.unv	13KB	UNV File	9/17/01 11:35 AM
Solid1Q.fdb	20KB	FDB File	9/17/01 11:35 AM
Solid1Q.fil	133KB	FIL File	9/17/01 11:35 AM
Solid1Q.resinp	10KB	RESINP File	9/17/01 11:35 AM
Solid1Q.unv	1KB	UNV File	9/17/01 11:35 AM
SolidCFD1.fdb	9KB	FDB File	9/17/01 11:35 AM
SolidCFD1.inp	3KB	INP File	9/17/01 11:35 AM
StructuralGrid.fdb	35KB	FDB File	9/17/01 11:35 AM
TexChem_1.fdb	9KB	FDB File	9/17/01 11:35 AM
TexChem_1.spatial	13KB	SPATIAL File	9/17/01 11:35 AM
ThermalGrid.unv	8KB	UNV File	9/17/01 11:35 AM
UnitCube.fdb	7KB	FDB File	9/17/01 11:35 AM
UnitSquare.fdb	3KB	FDB File	9/17/01 11:35 AM

187 object(s) 49.2MB (Disk free space: 0 bytes) My Computer

**FIG. 90**

**48/48**

**Exploring -D:\FEM Builder 1.2\Test**

Name	Size	Type	Modified
SelectN,E.fdb	8KB	FDB File	9/17/01 11:35 AM
SelectSurface.fdb	14KB	FDB File	9/17/01 11:35 AM
SelectSurface1.fdb	14KB	FDB File	9/17/01 11:35 AM
SelectVolume.fdb	14KB	FDB File	9/17/01 11:35 AM
sharp.plt	6KB	PLT File	9/17/01 11:35 AM
SinGen.gin	27KB	GIN File	9/17/01 11:35 AM
SinGen.out	1,009KB	OUT File	9/17/01 11:35 AM
Smooth2d_1.fdb	17KB	FDB File	9/17/01 11:35 AM
Smooth2d_2.fdb	16KB	FDB File	9/17/01 11:35 AM
Smooth2d_3.fdb	54KB	FDB File	9/17/01 11:35 AM
Solid1L.fdb	9KB	FDB File	9/17/01 11:35 AM
Solid1L.fil	53KB	FIL File	9/17/01 11:35 AM
Solid1L.resinp	4KB	RESINP File	9/17/01 11:35 AM
Solid1L.unv	13KB	UNV File	9/17/01 11:35 AM
Solid1Q.fdb	20KB	FDB File	9/17/01 11:35 AM
Solid1Q.fil	133KB	FIL File	9/17/01 11:35 AM
Solid1Q.resinp	10KB	RESINP File	9/17/01 11:35 AM
Solid1Q.unv	1KB	UNV File	9/17/01 11:35 AM
SolidCFD1.fdb	9KB	FDB File	9/17/01 11:35 AM
SolidCFD1.inp	3KB	INP File	9/17/01 11:35 AM
StructuralGrid.fdb	35KB	FDB File	9/17/01 11:35 AM
TexChem_1.fdb	9KB	FDB File	9/17/01 11:35 AM
TexChem_1.spatial	13KB	SPATIAL File	9/17/01 11:35 AM

187 object(s)      49.2MB (Disk free space: 0 bytes)       My Computer

**FIG. 91**

**Exploring -D:\Recess**

Name	Size	Type	Modified
Recess.bat	1KB	MS-DOS Batch File	9/19/01 2:57 PM
Recess.exe	5,089KB	Application	3/1/01 12:57 PM
RecessUser.doc	19KB	Microsoft Word Doc...	9/19/01 9:35 AM
RecessW.exe	24KB	Application	9/19/01 3:16 PM

4 object(s)      5.01MB (Disk free space: 0 bytes)       My Computer

**FIG. 92**